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ATLAS OF THE FLORA OF NEW ENGLAND: ASTERACEAE

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ABSTRACT

Dot maps are provided to depict the distribution at the county level of the taxa of Magnoliophyta: Asteraceae (corresponding to Flora of North America, Vols. 19, 20, 21) growing outside of cultivation in the six New England states of the northeastern United States. The maps treat 491 taxa (species, subspecies, varieties, and hybrids, but not forms) based primarily on specimens in the major herbaria of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut, with most data derived from the holdings of the New England Botanical Club Herbarium (NEBC). Brief synonymy (to account for names used in standard manuals and floras for the area), habitat, chromosome information, and common names are also provided.

KEY WORDS: flora, New England, atlas, distribution, Asteraceae

This article is the ninth in a series (Angelo & Boufford 1996, 1998, 2000, 2007, 2010, 2011a, 2011b, 2012) that present the distributions of the vascular flora of New England in the form of dot distribution maps at the county level (Figure 1). The atlas is posted on the internet at http://neatlas.org, where it will be updated as new information becomes available.

This project encompasses all vascular plants (lycophytes, pteridophytes and spermatophytes) at the rank of species, subspecies, and variety growing independent of cultivation in the six New England states. Hybrids are also included, but forms and other ranks below the level of variety are not. The dots are based on voucher specimens primarily in New England herbaria (of colleges, universities, botanical gardens, and public museums) representing reproducing populations outside of cultivated habitats. This ninth installment includes the family in Magnoliophyta: Asteraceae corresponding to the family treated in Flora of North America, Vols. 19, 20, 21 (Flora of North America Editorial Committee 2006a, 2006b, 2006c). Of the 491 taxa treated, 223 are not native to the region. Future accounts will treat the distribution of additional non-monocot angiosperms.

The habitat data are distillations from a variety of sources augmented by our own field observations. An attempt was made to indicate habitat information as it applies to a particular taxon in New England rather than to the entire range of the taxon. Such information is omitted where habitat is not indicated on the specimen label and where we also lack personal knowledge of the plant in New England. Omissions of habitat information are for a few introduced taxa and for all hybrids.

It is our hope that these articles will stimulate additional field work to supplement the distributions portrayed in the maps. The New England Botanical Club herbarium has proven to be the most important resource for this project. We are eager to receive information on voucher specimens in public herbaria documenting range extensions and filling county gaps in distributions. Similarly, because the atlas of the New England flora will be continuously updated as new information becomes available, we are eager to receive notification of published corrections of cytological information and new, documented chromosome counts for taxa in the New England flora.

MATERIALS AND METHODS

Materials and methods are as outlined in Angelo and Boufford (1996) and in a web version (Angelo & Boufford 2011c) and are not repeated here.

TAXONOMY AND FORMAT

The taxonomy and nomenclature adopted for this work essentially follow that of the Flora of North America project, except that families, genera, and species are arranged alphabetically. The families and their circumscription do not necessarily reflect current views on relationships or composition. The Angiosperm Phylogeny Website (Stevens 2001 onwards) should be consulted for a continuously updated treatment of families and their inclusive genera. Named and unnamed hybrid taxa are placed alphabetically at the end of the genus in which they occur. Unnamed hybrids combine the names of the progenitors alphabetically by epithet. Taxa that are not native to New England are indicated by uppercase text. Unpublished names are not used, even if publication is pending.

Chromosome numbers are taken primarily from Flora of North America, Vols. 19, 20, 21 (Flora of North America Editorial Committee 2006a, 2006b, 2006c) and from Goldblatt and Johnson (1979–).

Synonymy is provided primarily with respect to names accepted in standard manuals covering New England published from 1950 onward, including Fernald (1950), Gleason (1952), Gleason and Cronquist (1991), and Seymour (1982). Synonyms have not been provided where the distribution for the synonymized name does not include New England.

The following list (which includes excluded taxa) will aid readers in finding familiar names that have been transferred to other taxa:

Actinomeris	=>	*Verbesina*
Anthemis (in part)	=>	*Chamaemelum*
Anthemis (in part)	=>	*Cota*
Aster (in part)	=>	*Doellingeria*
Aster (in part)	=>	*Eurybia*
Aster (in part)	=>	*Ionactis*
Aster (in part)	=>	*Oclemena*
Aster (in part)	=>	*Sericocarpus*
Aster (in part)	=>	*Solidago*
Aster (in part)	=>	*Symphyotrichum*
Baeria (in part)	=>	*Lasthenia*
Cacalia	=>	*Hasteola*
Chrysanthemum (in part)	=>	*Glebionis*
Chrysanthemum (in part)	=>	*Leucanthemella*
Chrysanthemum (in part)	=>	*Leucanthemum*
Chrysanthemum (in part)	=>	*Nipponanthemum*
Chrysanthemum (in part)	=>	*Tanacetum*
Chrysopsis (in part)	=>	*Pityopsis*
Cnicus	=>	*Centaurea*
Dyssodia (in part)	=>	*Thymophylla*
Erigeron (in part)	=>	*Conyza*
Eupatorium (in part)	=>	*Ageratina*
Eupatorium (in part)	=>	*Eutrochium*
Gnaphalium (in part)	=>	*Euchiton*
Gnaphalium (in part)	=>	*Gamochaeta*
Gnaphalium (in part)	=>	*Omalotheca*

Gnaphalium (in part)	=>	*Pseudognaphalium*
Haplopappus (in part)	=>	*Xanthisma*
Helichrysum (in part)	=>	*Xerochrysum*
Hemizonia (in part)	=>	*Deinandra*
Inula (in part)	=>	*Dittrichia*
Iva (in part)	=>	*Cyclachaena*
Lactuca (in part)	=>	*Mulgedium*
Lactuca (in part)	=>	*Mycelis*
Matricaria (in part)	=>	*Tripleurospermum*
Megalodonta	=>	*Bidens*
Picris (in part)	=>	*Helminthotheca*
Senecio (in part)	=>	*Packera*
Solidago (in part)	=>	*Euthamia*

The following species have been reported from our area but are excluded for the reasons noted:

ACANTHOSPERMUM AUSTRALE (Loefling) Kuntze [no voucher found for wild occurrence; reported from Massachusetts]

AMBERBOA MOSCHATA (Linnaeus) de Candolle [no voucher found for wild occurrence; reported from Maine]

Antennaria rosea Greene subsp. *pulvinata* (Greene) R.J. Bayer [no specimen located; reported from Maine]

ARCTANTHEMUM ARCTICUM (Linnaeus) Tzvelev subsp. *POLARE* (Hultén) Tzvelev [no specimen located; reported from Massachusetts]

ARTEMISIA DRACUNCULUS Linnaeus (*A. GLAUCA* Pallas *ex* Willdenow var. *DRACUNCULINA* (S. Watson) Fernald) [no specimen located; reported from Massachusetts]

BRICKELLIA GRANDIFLORA (Hooker) Nuttall [no specimen located; reported from Rhode Island]

CARTHAMUS LANATUS Linnaeus [no voucher found for wild occurrence; reported from Massachusetts]

CENTAUREA BOVINA Velenovský [no specimen located; reported from Massachusetts]

CENTAUREA PHRYGIA Linnaeus (*C. AUSTRIACA* Willdenow) [no specimen located; reported from Vermont]

CENTIPEDA MINIMA (Linnaeus) A. Braun & Ascherson [no voucher found for wild occurrence; reported from Massachusetts]

COTULA AUSTRALIS (Sieber *ex* Sprengel) Hooker f. [no specimen located; reported from Maine]

CHRYSANTHEMUM × *MORIFOLIUM* (Ramatuelle) Hemsley (*pro species*) – (*C. INDICUM* Linnaeus × *C. JAPONICUM* Thunberg) [no specimen located; reported from Massachusetts]

CHRYSOGONUM VIRGINIANUM Linnaeus var. *BREVISTOLON* G.L. Nesom [no specimen located; reported from Rhode Island]

CIRSIUM CANUM (Linnaeus) Allioni [no specimen located; reported from Massachusetts]

CREPIS PANNONICA (Jacquin) K. Koch [no specimen located; reported from Connecticut]

CRUPINA VULGARIS Persoon *ex* Cassini [no specimen located; reported from Massachusetts]

EUCHITON INVOLUCRATUS (G. Forster) Anderberg (*GNAPHALIUM INVOLUCRATUM* G. Forster) [no voucher found for wild occurrence; reported from Massachusetts]

EUPATORIUM CAPILLIFOLIUM (Lamarck) Small [no specimen located; reported from Connecticut and Massachusetts]

Eurybia chlorolepis (E.S. Burgess) G.L. Nesom [specimen from Connecticut at CONN identified as this taxon is judged to be misidentified]

EURYBIA SURCULOSA (Michaux) G.L. Nesom (*ASTER SURCULOSA* Michaux) [no specimen located; reported from Massachusetts and Connecticut]

FLAVERIA TRINERVIA (Sprengel) C. Mohr [no voucher found for wild occurrence; reported from Massachusetts]

GAILLARDIA ARISTATA Pursh [no voucher found for wild occurrence; reported from Connecticut, Massachusetts and New Hampshire]

HELIANTHUS DEBILIS Nuttall subsp. *DEBILIS* [no voucher found for wild occurrence; reported from Maine]

HELIANTHUS HIRSUTUS Rafinesque [no specimen located; reported from Connecticut]

HELIANTHUS MICROCEPHALUS Torrey & A. Gray [no voucher found for wild occurrence; reported from Connecticut]

HELIANTHUS OCCIDENTALIS Riddell subsp. *OCCIDENTALIS* Torrey & A. Gray [no specimen located; reported from Massachusetts]

INULA SALICINA Linnaeus [no specimen located; reported from Massachusetts]

Lactuca floridana (Linnaeus) Gaertner [voucher has been re-identified as *L. biennis*; reported from Massachusetts]

LACTUCA SALIGNA Linnaeus [no specimen located; reported from Maine and Massachusetts]

LIATRIS LIGULISTYLIS (A. Nelson) K. Schumann [no specimen located; reported from Connecticut]

LIATRIS SCARIOSA (Linnaeus) Willdenow var. *NIEUWLANDII* (Lunell) E. G. Voss (*L.* × *NIEUWLANDII* (Lunell) Gaiser) [no specimen located; reported from Connecticut and Rhode Island]

LOGFIA MINIMA (Smith) Dumortier (*FILAGO MINIMA* (Smith) Persoon) [no voucher found for wild occurrence; reported from Massachusetts]

PEREZIA MULTIFLORA (Bonpland) Lessing subsp. *SONCHIFOLIA* (Baker) Vuilleumier (*P. ALETES* J. F. Macbride) [no voucher found for wild occurrence; reported from Massachusetts]

PETASITES JAPONICUS (Siebold & Zuccarini) Maximowicz [no voucher found for wild occurrence; reported from Maine]

Rudbeckia laciniata Linnaeus var. *bipinnata* Perdue [no specimen located; reported from Connecticut, Massachusetts and New Hampshire]

SANVITALIA PROCUMBENS Lamarck [no voucher found for wild occurrence; reported from Vermont]

SCHKUHRIA PINNATA (Lamarck) Kuntze *ex* Thellung [no voucher found for wild occurrence; reported from Maine and Massachusetts]

Senecio pseudoarnica Lessing [no specimen located; reported from Maine]

SENECIO SPARTIOIDES Torrey & A. Gray (*S. MULTICAPITATUS* Greenman) [no specimen located; reported from Massachusetts]

SERRATULA TINCTORIA Linnaeus [no specimen located; reported from Connecticut]

SIGESBECKIA ORIENTALIS Linnaeus [no specimen located; reported from Middlesex Co., Massachusetts, almost certainly based on the voucher for *S. JORULLENSIS* Kunth from the same county]

Solidago erecta Banks *ex* Pursh [no specimen located; specimen from Plymouth Co., Massachusetts at CONN identified as this taxon is judged to be misidentified; reported from Connecticut, Massachusetts and Rhode Island]

SOLIDAGO LEPIDA de Candolle var. *SALEBROSA* (Piper) Semple (*S. CANADENSIS* Linnaeus var. *SALEBROSA* (Piper) M. E. Jones) [no specimen located; reported from Maine]

Solidago × *beaudryi* B. Boivin (*S. rugosa* Miller var. *rugosa* × *S. uliginosa* Nuttall) [no specimen located; reported from Maine]

Symphyotrichum × *gravesii* (E.S. Burgess) G.L. Nesom (*pro species*) -- (*S. dumosum* (Linnaeus) G. L. Nesom × *S. laeve* (Linnaeus) Á. Löve & D. Löve var. *laeve*; *Aster gravesii* E. S. Burgess) [no specimen located; reported from Connecticut]

SYMPHYOTRICHUM LANCEOLATUM (Willdenow) G.L. Nesom var. *HIRSUTICAULE* (Semple & Chmielewski) G.L. Nesom (*ASTER LANCEOLATUS* Willdenow var.

HIRSUTICAULIS Semple & Chmielewski) [no specimen located; reported from Massachusetts, apparently from incorrect reading of a checklist]

Symphyotrichum novi-belgii (Linnaeus) G.L. Nesom var. *crenifolium* (Fernald) Labrecque & Brouillet (*Aster crenifolius* (Fernald) Cronquist) [no specimen located; reported from Maine, New Hampshire and Vermont]

Symphyotrichum phlogifolium (Muhlenberg *ex* Willdenow) G.L. Nesom (*Aster patens* Aiton var. *phlogifolius* (Muhlenberg *ex* Willdenow) Nees) [no specimen located; reported from Connecticut, Massachusetts, and Rhode Island]

Taraxacum ceratophorum (Ledebour) de Candolle [no specimen located; reported from Massachusetts and New Hampshire]

VERNONIA GLAUCA (Linnaeus) Willdenow [no specimen located; reported from Massachusetts]

ANGIOSPERMAE (MAGNOLIOPHYTA) - ANGIOSPERMS

ASTERACEAE

ACHILLEA FILIPENDULINA Lamarck—Gold Yarrow (Figure 2). $2n = 18, 36, 54$. Clay soil. From the Caucasus and western Asia.

ACHILLEA LIGUSTICA Allioni—Ligurian Yarrow (Figure 2). $2n = 18$. Roadsides. From the Mediterranean.

Achillea millefolium Linnaeus—Common Yarrow (Figure 2). $2n = 18, 27, 36, 45, 63, 72$ (including counts from Europe). Dry fields, roadsides, waste grounds. [*A. borealis* Bongard; *A. lanulosa* Nuttall]

ACHILLEA PTARMICA Linnaeus—Sneezewort (Figure 2). $2n = 18$. Roadsides, fields. From Eurasia.

Ageratina altissima (Linnaeus) R.M. King & H. Robinson var. *altissima*—White Snakeroot (Figure 2). $2n = 34$. Rich, moist woods, especially along rivers. [*Eupatorium rugosum* Houttuyn]

Ageratina aromatica (Linnaeus) Spach—Smaller White Snakeroot (Figure 2). $2n = 34$. Dry, open woods, clearings, thickets. [*Eupatorium aromaticum* Linnaeus]

AGERATUM CONYZOIDES Linnaeus—Billygoat-weed (Figure 2). $2n = 20, 40$. Waste ground. From South America.

AGERATUM HOUSTONIANUM Miller—Bluemink (Figure 2). $2n = 20$. Disturbed sites. From southeastern Mexico and Central America

Ambrosia artemisiifolia Linnaeus—Common Ragweed (Figure 2). $2n = 34, 36$. Waste areas, roadsides, fields. [*A. artemisiifolia* var. *elatior* (Linnaeus) Descourtilz; *A. artemisiifolia* var. *paniculata* (Michaux) Blankinship]

Ambrosia bidentata Michaux—Southern Ragweed (Figure 3). $2n = 34$. Waste ground.

AMBROSIA PSILOSTACHYA de Candolle—Western Ragweed (Figure 3). 2*n* = 18, 27, 36, 45, 54, 63, 72, 100-104, 108, 144. Railroads, waste places, dry fields. From farther west. [*A. PSILOSTACHYA* var. *CORONOPIFOLIA* (Torrey & A. Gray) Farwell]

Ambrosia trifida Linnaeus—Great Ragweed (Figure 3). 2*n* = 24, 48. Waste places, railroads, rich, damp soil. [*A. trifida* var. *texana* Scheele]

—*Ambrosia* hybrid—

Ambrosia × *helenae* Rouleau—(Figure 3). [*A. artemisiifolia* Linnaeus × *A. trifida* Linnaeus]

Anaphalis margaritacea (Linnaeus) Bentham & Hooker f.—Pearly Everlasting (Figure 3). 2*n* = 28. Dry woods, clearings, fields, roadsides. [*A. margaritacea* var. *angustior* (Miquel) Nakai; *A. margaritacea* var. *intercedens* H. Hara; *A. margaritacea* var. *subalpina* (A. Gray) A. Gray]

Antennaria howellii Greene subsp. *canadensis* (Greene) R.J. Bayer—(Figure 3). 2*n* = 56, 84. Dry fields, open woods. [*A. canadensis* Greene]

Antennaria howellii Greene subsp. *neodioica* (Greene) R.J. Bayer—Smaller Pussytoes (Figure 3). 2*n* = 56, 84. Dry fields, open woods. [*A. neglecta* Greene var. *neodioica* (Greene) Cronquist; *A. neodioica* Greene var. *neodioica*; *A. neodioica* var. *attenuata* Fernald; *A. neodioica* var. *chlorophylla* Fernald; *A. neodioica* var. *grandis* Fernald; *A. rupicola* Fernald]

Antennaria howellii Greene subsp. *petaloidea* (Fernald) R.J. Bayer—(Figure 3). 2*n* = 56, 84. Dry fields, open woods. [*A. neglecta* Greene var. *neodioica* (Fernald) Cronquist; *A. petaloidea* (Fernald) Fernald var. *petaloidea; A. petaloidea* var. *scariosa* Fernald; *A. petaloidea* var. *subcorymbosa* (Fernald) Fernald]

Antennaria neglecta Greene—Field Pussytoes (Figure 3). 2*n* = 28. Dry fields, open woods.

Antennaria parlinii Fernald subsp. *parlinii*—Smooth Pussytoes (Figure 4). 2*n* = 56, 70, 84, 112. Dry fields, open woods. [*A. parlinii* var. *arnoglossa* (Greene) Fernald; *A. plantaginifolia* (Linnaeus) Richardson var. *arnoglossa* (Greene) Cronquist]

Antennaria parlinii Fernald subsp. *fallax* (Greene) R.J. Bayer & Stebbins—(Figure 4). 2*n* = 56, 70, 84, 112. Dry fields, old woods. [*A. brainerdii* Fernald; *A. fallax* Greene; *A. munda* Fernald; *A. plantaginifolia* (Linnaeus) Richardson var. *ambigens* (Greene) Cronquist]

Antennaria plantaginifolia (Linnaeus) Hooker—(Figure 4). 2*n* = 28. Dry, open woods, fields, rocky banks. [*A. plantaginifolia* var. *petiolata* (Fernald) A. Heller]

—*Antennaria* hybrid—

Antennaria howellii Greene subsp. *petaloidea* (Fernald) R.J. Bayer × *A. plantaginifolia* (Linnaeus) Hooker—(Figure 4).

ANTHEMIS ARVENSIS Linnaeus—Corn Chamomile (Figure 4). 2*n* = 18. Waste places, fields, roadsides. From Eurasia, northern Africa. [*A. ARVENSIS* var. *AGRESTIS* (Wallroth) de Candolle]

ANTHEMIS COTULA Linnaeus—Mayeed (Figure 4). 2*n* = 18. Waste places, fields, roadsides. From Eurasia, northern Africa.

ARCTIUM LAPPA Linnaeus—Great Burdock (Figure 4). 2*n* = 32 (Japan), 34 (China), 36 (Japan, Sweden). Waste places, roadsides. From Eurasia.

ARCTIUM MINUS (Hill) Bernhardi—Common Burdock (Figure 4). 2*n* = 32 (Germany), 36. Waste places, roadsides. From Eurasia. [*A. NEMOROSUM* – misapplied; *A. VULGARE* – misapplied]

ARCTIUM TOMENTOSUM Miller—(Figure 4). 2*n* = 36. Waste places. From Eurasia.

—*Arctium* hybrid—

ARCTIUM LAPPA Linnaeus × *A. TOMENTOSUM* Miller—(Figure 5).

ARCTOTIS STOECHADIFOLIA P.J. Bergius—Blue-eyed African-daisy (Figure 5). 2*n* = 18. Railroads. From southern Africa. [*A. VENUSTA* Norlindh]

Arnica lanceolata Nuttall subsp. *lanceolata*—(Figure 5). 2*n* = 76. Damp banks and ledges in mountains, often subalpine. [*A. mollis* Hooker – misapplied; *A. mollis* var. *petiolaris* Fernald]

ARNOSERIS MINIMA (Linnaeus) Schweigger & Körte—Lamb's Succory (Figure 5). 2*n* = 18. Fields. From Europe.

ARTEMISIA ABROTANUM Linnaeus—Southernwood (Figure 5). 2*n* = 18. Waste places, roadsides. From Eurasia.

ARTEMISIA ABSINTHIUM Linnaeus—Common Wormwood (Figure 5). 2*n* = 18. Dry fields, roadsides, waste places. From Eurasia, northern Africa.

ARTEMISIA ANNUA Linnaeus—Sweet Annie (Figure 5). 2*n* = 18. Waste places, roadsides, fields. From Eurasia.

ARTEMISIA BIENNIS Willdenow—(Figure 5). 2*n* = 18. Waste places, roadsides, clearings. From farther west.

Artemisia campestris Linnaeus subsp. *canadensis* (Michaux) Scoggan—Canada Wormwood (Figure 5). 2*n* = ? Calcareous rocks and cliffs. [*A. canadensis* Michaux]

Artemisia campestris Linnaeus subsp. *caudata* (Michaux) H.M. Hall & Clements—(Figure 6). 2*n* = ? Open, usually sandy, soil. [*A. caudata* Michaux]

ARTEMISIA CARRUTHII Alph. Wood *ex* Carruthers—(Figure 6). 2*n* = 18. Railroads. From farther west.

ARTEMISIA FILIFOLIA Torrey—Sand Sage (Figure 6). 2*n* = 18. Waste places. From farther west.

ARTEMISIA FRIGIDA Willdenow—Prairie Sagewort (Figure 6). 2*n* = 18. Waste places, roadsides, railroads, dry fields. From farther west.

ARTEMISIA LUDOVICIANA Nuttall subsp. *LUDOVICIANA* R—Man Sage (Figure 6). 2*n* = 18, 36. Roadsides, railroads, waste places. From farther west. [*A. LUDOVICIANA* var. *AMERICANA* (Besser) Fernald; *A. LUDOVICIANA* var. *BRITTONII* (Rydberg) Fernald; *A.*

LUDOVICIANA var. *GNAPHALOIDES* (Nuttall) Torrey & A. Gray; *A. LUDOVICIANA* var. *LATIFOLIA* (Besser) Torrey & A. Gray; *A. LUDOVICIANA* var. *PABULARIS* (A. Nelson) Fernald; *A. GNAPHALOIDES* Nuttall]

ARTEMISIA PONTICA Linnaeus—Roman Wormwood (Figure 6). $2n = 18$. Roadsides, railroads, waste places, fields. From Eurasia.

ARTEMISIA STELLERIANA Besser—Dusty Miller (Figure 6). $2n = 18$. Sandy beaches, dunes. From northeastern Asia, Alaskan islands.

ARTEMISIA TRIDENTATA Nuttall subsp. *TRIDENTATA*—Big Sagebrush (Figure 6). $2n = 18, 36$. Fields. From farther west.

ARTEMISIA VULGARIS Linnaeus—Common Mugwort (Figure 6). $2n = 18, 36, 40, 54$. Roadsides, railroads, waste places, thickets. Eurasia, northern Africa. [*A. VULGARIS* var. *GLABRA* Ledebour; *A. VULGARIS* var. *LATILOBA* Ledebour]

ASTER TATARICUS Linnaeus f.—Shion (Figure 7). $2n = 54$. Roadsides, waste places. From northern Asia.

Baccharis halimifolia Linnaeus—Sea-myrtle (Figure 7). $2n = 18$. Salt marshes, waste places.

BELLIS PERENNIS Linnaeus—English Daisy (Figure 7). $2n = 18$. Waste places, roadsides. From Eurasia, northern Africa.

BIDENS ARISTOSA (Michaux) Britton—Midwestern Tickseed-sunflower (Figure 7). $2n = ?$ Waste places, fields. From farther west. [*B. ARISTOSA* var. *FRITCHEYI* Fernald; *B. ARISTOSA* var. *MUTICA* (A. Gray) Gattinger *ex* Fernald]

Bidens beckii Torrey *ex* Sprengel—Water-marigold (Figure 7). $2n = 26$. Ponds, slow streams. [*Megalodonta beckii* (Torrey *ex* Sprengel) Greene]

Bidens bipinnata Linnaeus—Spanish-needles (Figure 7). $2n = 24, 72$. Waste places, roadsides.

Bidens cernua Linnaeus—Nodding Bur-marigold (Figure 7). $2n = 24, 48$. Swamps, shores, wet ditches, bottomlands, marshes. [*B. cernua* var. *elliptica* Wiegand; *B. cernua* var. *integra* Wiegand; *B. cernua* var. *minima* (Hudson) Pursh; *B. cernua* var. *oligodonta* Fernald & H. St. John]

Bidens connata Muhlenberg *ex* Willdenow—Swamp Beggar-ticks (Figure 7). $2n = 48$. Shores, swamps. [*B. connata* var. *fallax* (Warnstorf) Sherff; *B. connata* var. *gracilipes* Fernald; *B. connata* var. *petiolata* (Nuttall) Farwell]

Bidens discoidea (Torrey & A. Gray) Britton—Small Beggar-ticks (Figure 7). $2n = 24$. Shores, swamps, marshes.

Bidens eatonii Fernald—(Figure 8). $2n = 48$. Tidal shores, estuaries and marshes. [*B. eatonii* var. *fallax* Fernald; *B. eatonii* var. *interstes* (Fassett) Fassett; *B. eatonii* var. *kennebecensis* Fernald; *B. eatonii* var. *major* Fassett; *B. eatonii* var. *mutabilis* Fassett; *B. eatonii* var. *simulans* Fassett]

Bidens frondosa Linnaeus—Common Beggar-ticks (Figure 8). 2*n* = 24, 48, 72. Swamps, shores, damp, open places.

Bidens heterodoxa (Fernald) Fernald & H. St. John—(Figure 8). 2*n* = 48. Lake shores. [*B. heterodoxa* var. *agnostica* Fernald; *B. heterodoxa* var. *monardifolia* Fernald]

Bidens hyperborea Greene—Estuary Beggar-ticks (Figure 8). 2*n* = 24, 36. Tidal mud-flats. [*B. hyperborea* var. *cathancensis* Fernald; *B. hyperborea* var. *colpophila* (Fernald & H. St. John) Fernald]

Bidens laevis (Linnaeus) Britton, Sterns & Poggenberg—Larger Bur-marigold (Figure 8). 2*n* = 22, 24. Marshes, shores of ponds and slow streams.

BIDENS PILOSA Linnaeus—Cobblers'-pegs (Figure 8). 2*n* = 24, 36, 48, 72. Waste places. From Mexico, Central & South America. [*B. PILOSA* var. *RADIATA* (Schultz-Bipontinus) Schultz-Bipontinus]

BIDENS TENUISECTA A. Gray—(Figure 8). 2*n* = 24, 48. Wool waste. From farther west.

Bidens trichosperma (Michaux) Britton—Tickseed-sunflower (Figure 8). 2*n* = 24. Meadows, swamps, bogs. [*B. coronata* (Linnaeus) Britton – invalid name; *B. coronata* (Linnaeus) Britton var. *brachyodonta* Fernald]

Bidens tripartita Linnaeus—(Figure 8). 2*n* = 48. Marshes, meadows, shores, other wet sites. [*B. comosa* (A. Gray) Wiegand]

Bidens vulgata Greene—Tall Beggar-ticks (Figure 9). 2*n* = 24, 48. Low ground, ditches, roadsides, waste places, often in moist soil.

— *Bidens* hybrids—

Bidens cernua Linnaeus × *B. connata* Muhlenberg *ex* Willdenow—(Figure 9).

Bidens cernua Linnaeus × *B. hyperborea* Greene—(Figure 9).

Bidens connata Muhlenberg *ex* Willdenow × *B. tripartita* Linnaeus—(Figure 9).

Bidens × *multiceps* Fassett—(Figure 9). [*B. connata* Muhlenberg *ex* Willdenow × *B. eatonii* Fernald]

BOLTONIA ASTEROIDES (Linnaeus) L'Héritier var. *LATISQUAMA* (A. Gray) Cronquist—(Figure 9). 2*n* = 18. Waste places, roadsides. From farther west. [*B. LATISQUAMA* A. Gray var. *LATISQUAMA*]

BOLTONIA ASTEROIDES (Linnaeus) L'Héritier var. *RECOGNITA* (Fernald & Griscom) Cronquist—(Figure 9). 2*n* = 36. Waste places. From farther west. [*B. LATISQUAMA* A. Gray var. *RECOGNITA* Fernald & Griscom]

CALENDULA OFFICINALIS Linnaeus—Pot Marigold (Figure 9). 2*n* = 14, 32. Waste places. Probably from the Mediterranean region.

CALLISTEPHUS CHINENSIS (Linnaeus) Nees—China Aster (Figure 9). 2*n* = 18. Fields, sandy, pond shores. From eastern Asia.

CALOTIS CUNEIFOLIA R. Brown—Purple Burr-daisy (Figure 10). 2*n* = 16, 32. Wool waste. From Australia.

CARDUUS ACANTHOIDES Linnaeus subsp. *ACANTHOIDES*—Plumeless Thistle (Figure 10). 2*n* = 22. Roadsides, waste places, fields. From Eurasia.

CARDUUS CRISPUS Linnaeus—Welted Thistle (Figure 10). 2*n* = 16 (Sweden). Roadsides, waste places, fields. From Eurasia.

CARDUUS NUTANS Linnaeus—Musk Thistle (Figure 10). 2*n* = 16. Roadsides, waste places, fields. From Eurasia.

CARTHAMUS TINCTORIUS Linnaeus—Safflower (Figure 10). 2*n* = 24. Waste areas. Probably from western Asia.

CENTAUREA BENEDICTA (Linnaeus) Linnaeus—Blessed Thistle (Figure 10). 2*n* = 22. Waste places, roadsides. From Mediterranean region, Asia Minor. [*CNICUS BENEDICTUS* Linnaeus]

CENTAUREA CALCITRAPA Linnaeus—Purple Star-thistle (Figure 10). 2*n* = 20. Roadsides, waste places, fields. From Eurasia, northern Africa.

CENTAUREA CYANUS Linnaeus—Cornflower (Figure 10). 2*n* = 24 (Russia). Roadsides, waste places, fields. From Eurasia.

CENTAUREA DIFFUSA Lamarck—(Figure 10). 2*n* = 18, 36. Roadsides, waste places, fields. From Eurasia.

CENTAUREA JACEA Linnaeus—Brown Knapweed (Figure 11). 2*n* = 22, 44. Roadsides, waste places, fields. From Eurasia. [*C. AMARA* Linnaeus]

CENTAUREA MELITENSIS Linnaeus—Tocalote (Figure 11). 2*n* = 24. Waste places. From the Mediterranean region.

CENTAUREA MONTANA Linnaeus—Mountain-bluet (Figure 11). 2*n* = 24 (Germany), 40 (Russia), 44 (France). Railroads, roadsides, waste places. From Europe.

CENTAUREA NIGRA Linnaeus—Spanish-buttons (Figure 11). 2*n* = 22, 44. Fields, roadsides, waste places. From Europe.

CENTAUREA NIGRESCENS Willdenow—Tyrol Knapweed (Figure 11). 2n = 22 (Hungary), 44 (Hungary, Italy). Fields, roadsides, waste places. From Eurasia. [*C. DUBIA* Suter – misapplied; *C. VOCHINENSIS* Bernhardi *ex* Reichenbach]

CENTAUREA SCABIOSA Linnaeus—Greater Knapweed (Figure 11). 2*n* = 20 (Russia), 40. Meadows, fields, roadsides, railroads. From Europe.

CENTAUREA SOLSTITIALIS Linnaeus—Yellow Star-thistle (Figure 11). 2*n* = 16. Fields, roadsides, waste places. From Eurasia, northern Africa.

CENTAUREA STOEBE Linnaeus subsp. *MICRANTHOS* (S.G. Gmelin *ex* Gugler) Hayek—(Figure 11). 2n = 36. Fields, roadsides, waste places. From Europe. [*C. MACULOSA* Lamarck – misapplied]

—*Centaurea* hybrid—

CENTAUREA × *MONCKTONII* C.E. Britton—(Figure 11). [*C. NIGRA* Linnaeus var. *RADIATA* de Candolle; *C. PRATENSIS* illegitimate name; *C. JACEA* Linnaeus × *C. NIGRA* Linnaeus]

CHAENACTIS GLABRIUSCULA de Candolle var. *GLABRIUSCULA*—(Figure 12). 2*n* = 12. Wool waste. From farther west.

CHAMAEMELUM NOBILE (Linnaeus) Allioni—Garden Chamomile (Figure 12). 2*n* = 18. Dry, oak woods, disturbed sites. From Europe, northern Africa. [*ANTHEMIS NOBILIS* Linnaeus]

Chrysopsis mariana (Linnaeus) Elliott—Maryland Golden-aster (Figure 12). 2n = 8, 16, 24, 32. Dry, sandy fields, roadsides.

CICHORIUM ENDIVIA Linnaeus—Endive (Figure 12). 2*n* = 18. Waste places. From Eurasia, northern Africa.

CICHORIUM INTYBUS Linnaeus—Common Chicory (Figure 12). 2*n* = 18. Fields, roadsides. From Eurasia, northern Africa.

Cirsium altissimum (Linnaeus) Sprengel—Roadside Thistle (Figure 12). 2*n* = 18. Fields, thickets.

CIRSIUM ARVENSE (Linnaeus) Scopoli—Canada Thistle (Figure 12). 2*n* = 34. Fields, roadsides, waste places. From Eurasia. [*C. ARVENSE* var. *INTEGRIFOLIUM* Wimmer & Grabowski; *C. ARVENSE* var. *MITE* Wimmer & Grabowski; *C. ARVENSE* var. *VESTITUM* Wimmer & Grabowski]

Cirsium discolor (Muhlenberg *ex* Willdenow) Sprengel—Field Thistle (Figure 12). 2*n* = 20, 21, 22. Moist thickets, damp woods, shores, meadows.

CIRSIUM FLODMANII (Rydberg) Arthur—(Figure 12). 2*n* = 22, 24. Dry pastures. From farther west.

Cirsium horridulum Michaux var. *horridulum*—Yellow Thistle (Figure 13). 2*n* = 32, 34. Fields, meadows, shores, roadsides, wood borders, usually in wet and often saline soil.

Cirsium muticum Michaux—Swamp Thistle (Figure 13). 2*n* = 20, 21, 22, 23, 30. Swamps, wet thickets, low, wet woods.

CIRSIUM OCHROCENTRUM A. Gray var. *OCHROCENTRUM*—(Figure 13). 2*n* = 32, 34. Pastures. From farther west.

CIRSIUM PALUSTRE (Linnaeus) Scopoli—(Figure 13). 2*n* = 34. Waste places. From Europe.

Cirsium pumilum (Nuttall) Sprengel var. *pumilum*—Pasture Thistle (Figure 13). 2*n* = 30. Fields, roadsides, dry, open soil.

CIRSIUM VULGARE (Savi) Tenore—Bull Thistle (Figure 13). 2*n* = 68. Fields, roadsides, waste places. From Eurasia, northern Africa.

CONYZA BONARIENSIS (Linnaeus) Cronquist—Hairy Fleabane (Figure 13). 2*n* = 54. Wool waste. Probably from South America. [*ERIGERON BONARIENSIS* Linnaeus]

Conyza canadensis (Linnaeus) Cronquist—Horseweed (Figure 13). 2*n* = 18. Fields, roadsides, waste places. [*Erigeron canadensis* Linnaeus; *E. pusillus* Nuttall]

COREOPSIS BASALIS (A. Dietrich) S. F. Blake—(Figure 13). 2*n* = 26. Roadsides, waste places. From farther south. [*C. DRUMMONDII* Torrey & A. Gray]

COREOPSIS GRANDIFLORA Hogg *ex* Sweet—(Figure 14). 2*n* = 26 (+ 0-2B). Fields, roadsides, waste places. From farther south and west. [*C. GRANDIFLORA* var. *HARVEYANA* (A. Gray) Sherff]

COREOPSIS LANCEOLATA Linnaeus—Sand Coreopsis (Figure 14). 2*n* = 26 (+ 0-4B). Dry, sandy fields, roadsides. From farther south and west. [*C. LANCEOLATA* var. *VILLOSA* Michaux]

COREOPSIS MAJOR Walter—Wood Tickseed (Figure 14). 2*n* = 26, 78, 104. Waste places. From farther south. [*C. MAJOR* var. *STELLATA* (Nuttall) B. L. Robinson]

COREOPSIS PUBESCENS Elliott—Star Tickseed (Figure 14). 2*n* = 26 (+ 0-2B). Fields, waste places. From farther south. [*C. PUBESCENS* var. *ROBUSTA* A. Gray *ex* Eames]

Coreopsis rosea Nuttall—Pink Tickseed (Figure 14). 2*n* = 26. Sandy, pond shores.

COREOPSIS TINCTORIA Nuttall—Garden Tickseed (Figure 14). 2*n* = 24 (+ 0-2B). Waste places, roadsides, wetland margins. From farther west and south.

COREOPSIS TRIPTERIS Linnaeus—Tall Coreopsis (Figure 14). 2*n* = 26. Roadsides. From farther west and south.

COREOPSIS VERTICILLATA Linnaeus—(Figure 14). 2*n* = 26, 52, 78. Roadsides. From farther south.

COSMOS BIPINNATUS Cavanilles—Garden Cosmos (Figure 14). 2*n* = 24. Waste places, roadsides. From Mexico and the southwestern United States.

COSMOS PARVIFLORUS (Jacquin) Persoon—(Figure 15). 2*n* = 24. Waste places, roadsides. From the southwestern United States.

COSMOS SULPHUREUS Cavanilles—Orange Cosmos (Figure 15). 2*n* = 24, 48. Waste places. From Mexico.

COTA TINCTORIA (Linnaeus) J. Gay *ex* Gussone—Yellow Chamomile (Figure 15). 2*n* = 18. Fields, waste places, roadsides. From Eurasia. [*ANTHEMIS TINCTORIA* Linnaeus]

COTULA CORONOPIFOLIA Linnaeus—Brass-buttons (Figure 15). 2*n* = 20. Ballast waste. From South Africa.

CREPIS BIENNIS Linnaeus—Rough Hawk's-beard (Figure 15). 2*n* = 40. Fields. From Europe.

CREPIS CAPILLARIS (Linnaeus) Wallroth—Smooth Hawk's-beard (Figure 15). 2*n* = 6. Fields, waste places, roadsides. From Europe. [*C. VIRENS* Linnaeus]

CREPIS FOETIDA Linnaeus—Stinking Hawk's-beard (Figure 15). 2*n* = 10. Wool waste. From Eurasia, northern Africa.

CREPIS NICAEENSIS Balbis—French Hawk's-beard (Figure 15). 2*n* = 8. Waste places. From Europe.

CREPIS SETOSA Haller f.—Bristly Hawk's-beard (Figure 15). 2*n* = 8. Fields. From Eurasia.

CREPIS TECTORUM Linnaeus—(Figure 16). 2*n* = 8. Waste places, fields, roadsides, meadows, open, sandy, disturbed areas. From Eurasia.

CREPIS VESICARIA Linnaeus—Beaked Hawk's-beard (Figure 16). 2*n* = 8, 16. Fields. From Europe, northern Africa. [*C. VESICARIA* subsp. *TARAXACIFOLIA* (Thuiller) Thellung]

CYCLACHAENA XANTHIIFOLIA (Nuttall) Fresenius—Giant Sumpweed (Figure 16). 2*n* = 36. Waste places, fields. From farther west. [*IVA XANTHIIFOLIA* Nuttall]

DEINANDRA FASCICULATA (de Candolle) Greene—(Figure 16). 2*n* = 24. Wool waste. From farther west. [*HEMIZONIA FASCICULATA* de Candolle; *H. FASCICULATA* subsp. *RAMOSISSIMA* (Bentham) D. D. Keck; *H. RAMOSISSIMA* Bentham]

DITTRICHIA GRAVEOLENS (Linnaeus) Greuter—Stinkwort (Figure 16). 2*n* = 18 (Morocco). Sandy, open, disturbed sites. From Eurasia, northern Africa. [*INULA GRAVEOLENS* (Linnaeus) Desfontaines]

Doellingeria infirma (Michaux) Greene—Appalachian Flat-top Aster (Figure 16). 2*n* = 18. Dry, open, deciduous, rocky woods. [*Aster infirmus* Michaux]

Doellingeria umbellata (Miller) Nees var. *umbellata*—Tall Flat-top White Aster (Figure 16). 2*n* = 18. Moist thickets and openings, meadows, swamps, bogs. [*Aster umbellatus* Miller]

DORONICUM PARDALIANCHES Linnaeus—Great Leopard's-bane (Figure 16). 2*n* = 60. Open, disturbed ground. From Europe.

DYSSODIA PAPPOSA (Ventenat) A. Hitchcock—Fetid Marigold (Figure 16). 2*n* = 26. Wool waste, roadsides, gravelly, river shores. From farther west.

ECHINACEA PALLIDA (Nuttall) Nuttall—(Figure 17). 2*n* = 22. Fields, roadsides. From farther west.

ECHINACEA PURPUREA (Linnaeus) Moench—Eastern Purple Coneflower (Figure 17). 2*n* = 22. Dry roadsides, wood margins. From farther south and west.

ECHINOPS SPHAEROCEPHALUS Linnaeus—Common Globe-thistle (Figure 17). 2*n* = 30, 32. Waste places, roadsides, fields. From Eurasia.

ECLIPTA PROSTRATA (Linnaeus) Linnaeus—Yerba-de-Tajo (Figure 17). 2*n* = 22. Waste places. From farther south and west. [*E. ALBA* (Linnaeus) Hasskarl]

Erechtites hieraciifolius (Linnaeus) Rafinesque *ex* de Candolle var. *hieraciifolius*—Pilewort (Figure 17). $2n = 40$. Damp thickets, clearings (especially burned areas), waste places, shores. [*E. hieraciifolius* var. *intermedius* Fernald; *E. hieraciifolius* var. *prealtus* (Rafinesque) Fernald]

Erechtites hieraciifolius (Linnaeus) Rafinesque *ex* de Candolle var. *megalocarpus* (Fernald) Cronquist—Saltmarsh Pilewort (Figure 17). $2n = ?$ Salt marshes, sandy, sea beaches. [*E. megalocarpus* Fernald]

Erigeron acris Linnaeus var. *kamtschaticus* (de Candolle) Herder—(Figure 17). $2n = 18$. Damp banks, thickets, clearings, roadsides. [*E. angulosus* Gaudin var. *kamtschaticus* (de Candolle) H. Hara – misapplied]

Erigeron annuus (Linnaeus) Persoon—Daisy Fleabane (Figure 17). $2n = 27$. Roadsides, fields, waste places.

ERIGERON GLABELLUS Nuttall var. *PUBESCENS* Hooker—Streamside Fleabane (Figure 17). $2n = ?$ Swamps. From farther west.

Erigeron hyssopifolius Michaux—(Figure 18). $2n = 18$. Rocky ledges.

Erigeron philadelphicus Linnaeus var. *philadelphicus*—Common Fleabane (Figure 18). $2n = 18$. Open woods, wood margins, fields, rich thickets, roadsides.

Erigeron philadelphicus Linnaeus var. *provancheri* (Victorin & J. Rousseau) B. Boivin—(Figure 18). $2n = 18$. Sandy crevices in shale receiving splashed water of river falls. [*E. provancheri* Victorin & J. Rousseau]

Erigeron pulchellus Michaux var. *pulchellus*—Robin's-plantain (Figure 18). $2n = 9, 18$. Fields, open woods, roadsides.

Erigeron strigosus Muhlenberg *ex* Willdenow var. *strigosus*—Lesser Daisy-fleabane (Figure 18). $2n = 18, 27, 36, 54$. Dry, open soil, fields, roadsides. [*E. strigosus* var. *beyrichii* (Fischer & C. A. Meyer) Torrey & A. Gray; *E. strigosus* var. *discoideus* Robbins]

Erigeron strigosus Muhlenberg *ex* Willdenow var. *septentrionalis* (Fernald & Wiegand) Fernald—Lesser Daisy-fleabane (Figure 18). $2n = ?$ Dry, open soil, fields, roadsides.

Eupatorium album Linnaeus var. *album*—(Figure 18). $2n = 20$. Dry, open, disturbed soil.

EUPATORIUM ALTISSIMUM Linnaeus—(Figure 18). $2n = 20, 30, 40$. Roadsides, waste places. From farther west and south.

Eupatorium hyssopifolium Linnaeus var. *hyssopifolium*—Justice-weed (Figure 18). $2n = 20, 30$. Dry, sandy fields, dry, open woods and clearings, roadsides. [*E. hyssopifolium* var. *calcaratum* Fernald & B. G. Schubert]

Eupatorium hyssopifolium Linnaeus var. *laciniatum* A. Gray—(Figure 19). $2n = 30, 40$. Roadsides.

Eupatorium perfoliatum Linnaeus—Boneset (Figure 19). $2n = 20$. Low woods, shores, swamps. [*E. perfoliatum* var. *colpophilum* Fernald & Griscom]

Eupatorium pilosum Walter—(Figure 19). 2*n* = 20, 30, 40. Low woods, shores, swamps, moist, low ground. [*E. rotundifolium* Linnaeus var. *saundersii* (Porter *ex* Britton) Cronquist]

Eupatorium rotundifolium Linnaeus var. *rotundifolium*—Round-leaved Thoroughwort (Figure 19). 2*n* = 20, 30. Open woods, clearings.

Eupatorium rotundifolium Linnaeus var. *ovatum* (Bigelow) Torrey *ex* de Candolle—Round-leaved Thoroughwort (Figure 19). 2*n* = 20, 30. Dry, open woods, clearings, roadsides.

EUPATORIUM SEROTINUM Michaux—(Figure 19). 2*n* = 20. Roadsides, railroad yard, fields. From farther west and south.

Eupatorium sessilifolium Linnaeus—Upland Boneset (Figure 19). 2*n* = 20, 30. Rocky, open woods. [*E. sessilifolium* var. *brittonianum* Porter]

—*Eupatorium* hybrid—

Eupatorium × *novae-angliae* (Fernald) V. Sullivan *ex* A. Haines & Sorrie (*pro species*)—(Figure 19). [*E. PALUDICOLA* E. E. Schilling & LeBlond × *E. perfoliatum* Linnaeus]

Eurybia divaricata (Linnaeus) G.L. Nesom—White Wood Aster (Figure 19). 2*n* = 18. Rich, deciduous woods, clearings, roadsides. [*Aster divaricatus* Linnaeus]

Eurybia macrophylla (Linnaeus) Cassini—(Figure 20). 2*n* = 72. Open woods, thickets, clearings, roadsides. [*Aster macrophyllus* Linnaeus var. *macrophyllus*; *A. macrophyllus* var. *apricensis* E.S. Burgess; *A. macrophyllus* var. *excelsior* E.S. Burgess; *A. macrophyllus* var. *ianthinus* (E.S. Burgess) Fernald; *A. macrophyllus* var. *pinguifolius* E.S. Burgess; *A. macrophyllus* var. *sejunctus* E.S. Burgess; *A. macrophyllus* var. *velutinus* E.S. Burgess]

Eurybia radula (Aiton) G.L. Nesom—(Figure 20). 2*n* = 18. *Sphagnum* bogs, boggy shores, swamps, low woods. [*Aster radula* Aiton var. *radula*; *A. radula* Aiton var. *strictus* A. Gray]

Eurybia schreberi (Nees) Nees—(Figure 20). 2*n* = 54. Rich, deciduous or mixed woods, thickets. [*Aster glomeratus* Bernhardi *ex* Nees; *A. macrophyllus* Linnaeus var. *schreberi* (Nees) F. Seymour; *A. schreberi* Nees]

Eurybia spectabilis (Aiton) G.L. Nesom—Seaside Purple Aster (Figure 20). 2*n* = 72. Dry, sandy, open woods and clearings, roadsides. [*Aster spectabilis* Aiton]

—*Eurybia* hybrid—

Eurybia × *herveyi* (A. Gray) G.L. Nesom (*pro species*)—(Figure 20). [*E. macrophylla* (Linnaeus) Cassini × *E. spectabilis* (Aiton) G. L. Nesom; *Aster herveyi* A. Gray]

Euthamia caroliniana (Linnaeus) Greene *ex* Porter & Britton—Quobsque-weed (Figure 20). 2*n* = 18. Sandy shores, open, sandy soils. [*E. microcephala* Greene; *Solidago microcephala* Bush; *S. tenuifolia* Pursh var. *tenuifolia*; *S. tenuifolia* var. *pycnocephala* Fernald]

Euthamia graminifolia (Linnaeus) Nuttall—Common Flat-topped Goldenrod (Figure 20). 2*n* = 18. Shores, beaches, salt marsh borders, fields. [*Solidago graminifolia* (Linnaeus) Salisbury var. *graminifolia*; *S. graminifolia* var. *nuttallii* (Greene) Fernald; *S. graminifolia* var. *polycephala* Fernald]

Eutrochium dubium (Willdenow *ex* Poiret) E.E. Lamont—Eastern Joe-pye-weed (Figure 20). 2*n* = 20. Meadows, shores, low, moist, acid soil. [*Eupatorium dubium* Willdenow *ex* Poiret]

Eutrochium fistulosum (Barratt) E.E. Lamont—Trumpetweed (Figure 20). 2*n* = 20. Moist thickets, meadows, alluvial woods. [*Eupatorium fistulosum* Barratt]

Eutrochium maculatum (Linnaeus) E.E. Lamont var. *maculatum*—(Figure 21). 2*n* = 20. Moist thickets, meadows, shores, usually in rich or calcareous soil. [*Eupatorium maculatum* Linnaeus var. *maculatum*]

Eutrochium maculatum (Linnaeus) E.E. Lamont var. *foliosum* (Fernald) E. E. Lamont—(Figure 21). 2*n* = 20. Moist thickets, meadows, shores, usually in rich or calcareous soil. [*Eupatorium maculatum* Linnaeus var. *foliosum* (Fernald) Wiegand]

Eutrochium purpureum (Linnaeus) E.E. Lamont var. *purpureum*—Sweet Joe-pye-weed (Figure 21). 2*n* = 20. Rich, deciduous, chiefly calcareous woods. [*Eupatorium purpureum* Linnaeus var. *purpureum*]

FILAGO VULGARIS Lamarck—Herba Impia (Figure 21). 2*n* = 28 (British Isles, Bulgaria, Czechoslovakia, Greece). From Eurasia, northern Africa. [*FILAGO GERMANICA* Linnaeus]

FLAVERIA BIDENTIS (Linnaeus) Kuntze—Coastal Plain Yellowtops (Figure 21). 2*n* = 36. Wool waste. From South America.

GAILLARDIA PULCHELLA Fougeroux—Firewheel (Figure 21). 2*n* = 34. Waste places, roadsides, dry, sandy open places. From farther west. [*G. PULCHELLA* var. *PICTA* (D. Don) A. Gray; *G. PICTA* D. Don]

—*Gaillardia* hybrid—

GAILLARDIA × *GRANDIFLORA* Van Houtte (*pro species*)—(Figure 21). [*G. ARISTATA* Pursh × *G. PULCHELLA* Fougeroux]

GALINSOGA PARVIFLORA Cavanilles var. *PARVIFLORA*—Gallant Soldier (Figure 21). 2*n* = 16. Waste places, roadsides, fields. From Mexico, West Indies, Central & South America.

GALINSOGA QUADRIRADIATA Ruiz & Pavón—Shaggy Soldier (Figure 21). 2*n* = 16, 32 (+ 0-2B). Waste places, roadsides, fields. From Mexico, West Indies, Central & South America. [*G. BICOLORATA* H. St. John & D. White; *G. CARACASANA* (de Candolle) Schultz-Bipontinus; *G. CILIATA* (Rafinesque) S. F. Blake; *G. PARVIFLORA* Cavanilles var. *HISPIDA* de Candolle]

GAMOCHAETA PENSYLVANICA (Willdenow) Cabrera—(Figure 22). 2*n* = 28. Waste places, roadsides, fields. From Mexico, Central & South America. [*GNAPHALIUM PEREGRINUM* Fernald]

Gamochaeta purpurea (Linnaeus) Cabrera—Purple Cudweed (Figure 22). 2*n* = 14, 28. Dry fields, sandy openings, waste places, roadsides. [*Gnaphalium purpureum* Linnaeus]

GLEBIONIS CORONARIA (Linnaeus) Cassini *ex* Spach—Garland Chrysanthemum (Figure 22). 2*n* = 18. Waste places. From Eurasia, northern Africa. [*CHRYSANTHEMUM CORONARIUM* Linnaeus]

GLEBIONIS SEGETUM (Linnaeus) Fourreau—Corn Marigold (Figure 22). 2*n* = 18. Waste places, roadsides. From Eurasia, northern Africa. [*CHRYSANTHEMUM SEGETUM* Linnaeus]

Gnaphalium uliginosum Linnaeus—Low Cudweed (Figure 22). 2*n* = 14. Roadside ditches, damp clearings, meadows, waste places.

GRINDELIA HIRSUTULA Hooker & Arnott—(Figure 22). 2*n* = 12, 24. Waste places. From farther west. [*G. SQUARROSA* (Pursh) Dunal var. *QUASIPERENNIS* Lunell]

GRINDELIA LANCEOLATA Nuttall—(Figure 22). 2*n* = 12. Roadsides. From farther south and west.

GRINDELIA SQUARROSA (Pursh) Dunal—(Figure 22). 2*n* = 12. Waste places, roadsides. From farther west. [*G. SQUARROSA* var. *SERRULATA* (Rydberg) Steyermark]

GUIZOTIA ABYSSINICA (Linnaeus f.) Cassini—Niger Seed (Figure 22). 2*n* = 30 (India). Waste places, roadsides. From tropical Africa.

Hasteola suaveolens (Linnaeus) Pojarkova—(Figure 23). 2*n* = 20. Stream banks, thickets, rich woods. [*C. suaveolens* Linnaeus]

HELENIUM AMARUM (Rafinesque) H. Rock var. *AMARUM*—Yellowdicks (Figure 23). 2*n* = 30. Waste places, railroads. From farther south. [*H. TENUIFOLIUM* Nuttall]

Helenium autumnale Linnaeus—Common Sneezeweed (Figure 23). 2*n* = 32, 34, 36. Shores, meadows. [*H. autumnale* var. *canaliculatum* (Lamarck) Torrey & A. Gray; *H. autumnale* var. *parviflorum* (Nuttall) Fernald]

HELENIUM FLEXUOSUM Rafinesque—Purplehead Sneezeweed (Figure 23). 2*n* = 28. Meadows, shores, fields. From farther south. [*H. NUDIFLORUM* Nuttall]

HELIANTHUS ANNUUS Linnaeus—Common Sunflower (Figure 23). 2*n* = 34. Waste places, roadsides. From farther west.

HELIANTHUS DEBILIS Nuttall subsp. *CUCUMERIFOLIUS* (Torrey & A. Gray) Heiser—(Figure 23). 2*n* = 34. Waste places, fields. From farther south.

Helianthus decapetalus Linnaeus—(Figure 23). 2*n* = 34, 68. Open woods, thickets, often moist soil near streams, roadsides. [*H. trachelifolius* Miller]

Helianthus divaricatus Linnaeus—Woodland Sunflower (Figure 23). 2*n* = 34. Dry, thickets, woods, and openings, roadsides. [*H. divaricatus* var. *angustifolius* Kuntze]

Helianthus giganteus Linnaeus—(Figure 23). 2*n* = 34. Dry fields, salt marsh borders, usually wet, open sites.

HELIANTHUS GROSSESERRATUS M. Martens—(Figure 24). 2*n* = 34. Roadsides, sandy fields, rich thickets. From farther west.

HELIANTHUS MAXIMILIANI Schrader—(Figure 24). 2*n* = 34. Waste places, fields. From farther west. [*H. dalyi* Britton]

HELIANTHUS MOLLIS Lamarck—Ashy Sunflower (Figure 24). 2*n* = 34. Dry, sandy fields, roadsides, waste places. From farther south and west.

HELIANTHUS PAUCIFLORUS Nuttall subsp. *PAUCIFLORUS*—(Figure 24). 2*n* = ? Dry, sandy fields, waste places. From farther west. [*H. LAETIFLORUS* Persoon var. *RIGIDUS* (Cassini) Fernald]

HELIANTHUS PAUCIFLORUS Nuttall subsp. *SUBRHOMBOIDEUS* (Rydberg) O. Spring & E. E. Schilling—(Figure 24). 2*n* = ? Roadsides, waste places. From farther west. [*H. LAETIFLORUS* Persoon var. *SUBRHOMBOIDEUS* (Rydberg) Fernald]

HELIANTHUS PETIOLARIS Nuttall subsp. *PETIOLARIS*—Prairie Sunflower (Figure 24). 2*n* = 34. Dry roadsides, waste places. From farther west.

Helianthus strumosus Linnaeus—(Figure 24). 2*n* = 68, 102. Thickets, open woods, clearings, roadsides.

HELIANTHUS TUBEROSUS Linnaeus—Jerusalem Artichoke (Figure 24). 2*n* = 102. Waste places, roadsides, fields. From farther west and south. [*H. TUBEROSUS* var. *SUBCANESCENS* A. Gray]

— *Helianthus* hybrids—

Helianthus × *ambiguus* (Torrey & A. Gray) Britton (*pro species*)—(Figure 24). [*H. divaricatus* Linnaeus × *H. giganteus* Linnaeus]

HELIANTHUS × *DIVARISERRATUS* R.W. Long—(Figure 25). [*H. divaricatus* Linnaeus × *H. GROSSESERRATUS* M. Martens]

HELIANTHUS × *DORONICOIDES* Lamarck (*pro species*)—(Figure 25). [*H. giganteus* Linnaeus × *H. MOLLIS* Lamarck]

HELIANTHUS × *INTERMEDIUS* R.W. Long—(Figure 25). [*H. GROSSESERRATUS* M. Martens × *H. MAXIMILIANI* Schrader]

HELIANTHUS × *KELLERMANII* Britton (*pro species*)—(Figure 25). [*H. GROSSESERRATUS* M. Martens × *H. SALICIFOLIUS* A. Dietrich]

HELIANTHUS × *LAETIFLORUS* Persoon (*pro species*)—(Figure 25). [*H. PAUCIFLORUS* Nuttall × *H. TUBEROSUS* Linnaeus]

HELIANTHUS × *LUXURIANS* E. Watson (*pro species*)—(Figure 25). [*H. giganteus* Linnaeus × *H. GROSSESERRATUS* M. Martens]

HELIOMERIS MULTIFLORA Nuttall var. *MULTIFLORA*—(Figure 25). 2*n* = 16. Wool waste. From farther west.

HELIOPSIS HELIANTHOIDES (Linnaeus) Sweet var. *HELIANTHOIDES*—False Sunflower (Figure 25). 2*n* = ? Fields, waste places, thickets. From farther west and south.

HELIOPSIS HELIANTHOIDES (Linnaeus) Sweet var. *SCABRA* (Dunal) Fernald—(Figure 25). 2*n* = ? Fields, waste places, thickets. From farther west.

HELMINTHOTHECA ECHIOIDES (Linnaeus) Holub—Oxtongue (Figure 26). 2*n* = 10. Fields, waste places, roadsides. From Eurasia, northern Africa. [*PICRIS ECHIOIDES* Linnaeus]

HETEROSPERMA PINNATUM Cavanilles—Wingpetal (Figure 26). 2*n* = 48, 50. Wool waste. From farther west.

HETEROTHECA SUBAXILLARIS (Lamarck) Britton & Rusby subsp. *LATIFOLIA* (Buckley) Semple—(Figure 26). 2*n* = 18. Roadsides. From farther south.

HIERACIUM AURANTIACUM Linnaeus—Devil's Paintbrush (Figure 26). 2*n* = 30, 36, 45, 54, 63. Fields, clearings, roadsides. From Europe.

HIERACIUM CAESPITOSUM Dumortier—Yellow Fox-and-cubs (Figure 26). 2*n* = 18, 36, 45. Fields, clearings, roadsides. From Europe. [*H. PRATENSE* Tausch]

HIERACIUM FLAGELLARE Willdenow—(Figure 26). 2*n* = 26, 45, 54. Waste places, roadsides, fields. From Europe.

Hieracium gronovii Linnaeus—(Figure 26). 2*n* = 18. Dry fields, open pine or pine-oak woods, dry openings, roadsides.

HIERACIUM LACHENALII Suter—European Hawkweed (Figure 26). 2*n* = 27, 36. Roadsides, thickets, openings in woods. From Europe. [*H. VULGATUM* Fries]

HIERACIUM MACULATUM Schrank—(Figure 26). 2*n* = 36. Calcareous till. From Europe.

HIERACIUM MURORUM Linnaeus—Golden Lungwort (Figure 27). 2*n* = 27, 36. Roadsides, fields, thickets, openings in woods. From Eurasia.

Hieracium paniculatum Linnaeus—Allegheny Hawkweed (Figure 27). 2*n* = 18. Dry, often rocky, open woods, roadsides.

HIERACIUM PILOSELLA Linnaeus—Mouse-ear Hawkweed (Figure 27). 2*n* = 18, 36, 45, 54, 63, 72, 81, 90. Dry, open soil, fields, roadsides. From Eurasia. [*H. PILOSELLA* var. *NIVEUM* Müller Argoviensis]

HIERACIUM PILOSELLOIDES Villars—Glaucous King Devil (Figure 27). 2*n* = 18, 36. Fields, roadsides, clearings. From Eurasia. [*H. FLORENTINUM* Allioni]

HIERACIUM PRAEALTUM Villars *ex* Gochnat—(Figure 27). 2*n* = 45. Fields, meadows, roadsides. From Europe. [*H. PRAEALTUM* var. *DECIPIENS* W. D. J. Koch]

Hieracium robinsonii (Zahn) Fernald—(Figure 27). 2*n* = 27. Ledge crevices, rocky shores.

HIERACIUM SABAUDUM Linnaeus—(Figure 27). 2*n* = 18, 27, 36. Roadsides, waste places, fields. From Eurasia.

Hieracium scabrum Michaux—Sticky Hawkweed (Figure 27). 2*n* = 18. Dry, open woods, fields, clearings, roadsides. [*H. scabrum* var. *tonsum* Fernald & H. St. John]

Hieracium umbellatum Linnaeus—Northern Hawkweed (Figure 27). 2*n* = 18, 27. Dry, open woods, fields, woods margins, shores, thickets, clearings, roadsides. [*H. canadense* Michaux var.

canadense; *H. canadense* var. *fasciculatum* (Pursh) Fernald; *H. canadense* var. *hirtirameum* Fernald; *H. kalmii* Linnaeus]

Hieracium venosum Linnaeus—Rattlesnake-weed (Figure 28). $2n = 18$. Dry, open, sandy woods, fields, clearings. [*H. venosum* var. *nudicaule* (Michaux) Farwell]

— *Hieracium* hybrids—

HIERACIUM × *ATRAMENTARIUM* (Nägeli & Peter) Zahn *ex* Engelmann (*pro species*)—(Figure 28). [*H. AURANTIACUM* Linnaeus × *H. PILOSELLOIDES* Villars]

Hieracium × *fassettii* Lepage—(Figure 28). [*H.* × *fernaldii* Lepage; *H. scabrum* Michaux × *H. umbellatum* Linnaeus]

HIERACIUM × *FLORIBUNDUM* Wimmer & Grabowski (*pro species*)—(Figure 28). [*H. CAESPITOSUM* Dumortier × *H. LACTUCELLA* Wallroth]

HIERACIUM × *FUSCOATRUM* Nägeli & Peter—(Figure 28). [*H. AURANTIACUM* Linnaeus × *H. CAESPITOSUM* Dumortier]

Hieracium × *marianum* Willdenow (*pro species*)—(Figure 28). [*H. gronovii* Linnaeus or *H. scabrum* Michaux × *H. venosum* Linnaeus]

HYMENOXYS ODORATA de Candolle—Bitter Rubberweed (Figure 28). $2n = 22, 24, 28, 30$. Waste places. From farther west.

HYPOCHAERIS GLABRA Linnaeus—(Figure 28). $2n = 8, 10, 12$. Wool waste, fields. From Eurasia, northern Africa.

HYPOCHAERIS RADICATA Linnaeus—Common Cat's-ear (Figure 28). $2n = 8$. Roadsides, fields, waste places. From Eurasia, northern Africa.

INULA HELENIUM Linnaeus—Elecampane (Figure 29). $2n = 20$. Damp fields, roadsides, clearings, waste places. From Eurasia.

Ionactis linariifolia (Linnaeus) Greene—Stiff Aster (Figure 29). $2n = 18$. Dry, open, sandy soil, woods borders, rocky outcrops. [*Aster linariifolius* Linnaeus]

IVA ANNUA Linnaeus—Sumpweed (Figure 29). $2n = 34$. Waste places. From farther west and south. [*I. CILIATA* Willdenow]

Iva frutescens Linnaeus—Jesuits'-bark (Figure 29). $2n = 34$. Saline marshes and shores at normal high tide limit. [*I. frutescens* var. *oraria* (Bartlett) Fernald & Griscom]

JACOBAEA VULGARIS Gaertner—Stinking Willie (Figure 29). $2n = 40$. Wet pastures, roadsides. From Eurasia, northern Africa. [*SENECIO JACOBAEA* Linnaeus]

Krigia biflora (Walter) S.F. Blake—(Figure 29). $2n = 10, 20$. Fields, meadows.

Krigia virginica (Linnaeus) Willdenow—(Figure 29). $2n = 10, 20$. Dry fields, rock outcrops, sandy woods and roadsides.

Lactuca biennis (Moench) Fernald—Tall Blue Lettuce (Figure 29). 2*n* = 34. Rich or damp, open woods, clearings, thickets.

Lactuca canadensis Linnaeus—Wild Lettuce (Figure 29). 2*n* = 34. Thickets, woods borders, open woods, meadows, fields, clearings, roadsides. [*L. canadensis* var. *latifolia* Kuntze; *L. canadensis* var. *longifolia* (Michaux) Farwell; *L. canadensis* var. *obovata* Wiegand]

Lactuca hirsuta Muhlenberg *ex* Nuttall—(Figure 30). 2*n* = 34. Dry, open woods, clearings. [*L. hirsuta* var. *sanguinea* (Bigelow) Fernald]

LACTUCA SATIVA Linnaeus—Garden Lettuce (Figure 30). 2*n* = 18. Waste places. From Eurasia.

LACTUCA SERRIOLA Linnaeus—Prickly Lettuce (Figure 30). 2*n* = 18. Waste places, roadsides. From Eurasia, northern Africa. [*L. SCARIOLA* Linnaeus – illegitimate name]

— *Lactuca* hybrid—

Lactuca × *morssii* B.L. Robinson (*pro species*)—(Figure 30). [*H. biennis* (Moench) Fernald × *H. canadensis* Linnaeus]

LAPSANA COMMUNIS Linnaeus—Nipplewort (Figure 30). 2*n* = 14, 16. Waste places, roadsides, rich woods. From Eurasia.

LASTHENIA CALIFORNICA de Candolle *ex* Lindley subsp. *CALIFORNICA*—(Figure 30). 2*n* = 16, 32, 48. Wool waste. From farther west. [*L. CHRYSOTOMA* (Fischer & C. A. Meyer) Greene; *BAERIA CHRYSOTOMA* Fischer & C. A. Meyer]

LASTHENIA MINOR (de Candolle) Ornduff—Coastal Goldfields (Figure 30). 2*n* = 8. Wool waste. From farther west. [*BAERIA MINOR* (de Candolle) Ferris]

LAYIA PLATYGLOSSA (Fischer & C.A. Meyer) A. Gray—Tidy-tips (Figure 30). 2*n* = 14. Wool waste. From farther west.

LEONTODON HISPIDUS Linnaeus—(Figure 30). 2*n* = 14. Fields, roadsides. From Eurasia. [*L. HASTILIS* Linnaeus var. *HASTILIS; L. HASTILIS* var. *VULGARIS* W. D. J. Koch]

LEONTODON SAXATILIS Lamarck subsp. *SAXATILIS*—(Figure 31). 2*n* = 8. Sandy beaches and open areas. From Eurasia. [*L. LEYSSERI* (Wallroth) G. Beck; *L. TARAXACOIDES* (Villars) Willdenow ex Mérat de Vaumartoise – illegitimate name]

LEUCANTHEMELLA SEROTINA (Linnaeus) Tzvelev—Giant Daisy (Figure 31). 2*n* = 18. Roadsides. From Europe. [*CHRYSANTHEMUM ULIGINOSUM* Persoon]

LEUCANTHEMUM VULGARE Lamarck—Oxeye Daisy (Figure 31). 2*n* = 18, 36, 54, 72, 90. Fields, clearings, waste places, roadsides. From Eurasia. [*CHRYSANTHEMUM LEUCATHEMUM* Linnaeus var. *LEUCATHEMUM*; *C. LEUCATHEMUM* var. *PINNATIFIDUM* Lecoq & Lamotte]

— *Leucanthemum* hybrid—

LEUCANTHEMUM × *SUPERBUM* (Bergmans *ex* J. Ingram) Bergmans *ex* D.H. Kent—(Figure 31). [*L. LACUSTRE* (Brotero) Sampaio × *L. MAXIMUM* (Ramond) de Candolle]

LIATRIS CYLINDRACEA Michaux—(Figure 31). 2*n* = 20. From farther west and south.

LIATRIS PYCNOSTACHYA Michaux var. *PYCNOSTACHYA*—(Figure 31). 2*n* = ? Roadsides, waste places, fields, sandy, pine woods clearings. From farther west and south.

Liatris scariosa (Linnaeus) Willdenow var. *novae-angliae* (Lunell) Gandhi, S.M. Young & P. Somers—(Figure 31). 2*n* = ? Dry, sandy, fields, open woods, clearings and roadsides. [*L. borealis* Nuttall ex J. McNab – misapplied]

LIATRIS SPICATA (Linnaeus) Willdenow var. *SPICATA*—(Figure 31). 2*n* = 20. Roadsides, clearings, waste places. From farther south and west.

MADIA GLOMERATA Hooker—Mountain Tarweed (Figure 31). 2*n* = 28. Waste places, roadsides. From farther west.

MADIA GRACILIS (Smith) D.D. Koch—(Figure 32). 2*n* = 32, 48. Fields, waste places. From farther west. [*M. DISSITIFLORA* (Nuttall) Torrey & A. Gray; *M. SATIVA* Molina subsp. *DISSITIFLORA* (Nuttall) D. D. Keck]

MADIA SATIVA Molina—(Figure 32). 2*n* = 32. Fields, waste places, roadsides. From farther west. [*M. SATIVA* var. *CONGESTA* Torrey & A. Gray]

MATRICARIA CHAMOMILLA Linnaeus—German Chamomile (Figure 32). 2*n* = 18. Waste places, roadsides. From Eurasia, northern Africa. [*M. CHAMOMILLA* var. *CORONATA* J. Gay *ex* Boissier; *M. RECUTITA* Linnaeus]

MATRICARIA DISCOIDEA de Candolle—Pineapple-weed (Figure 32). 2*n* = 18. Waste places, roadsides, fields. From farther west. [*M. MATRICARIOIDES* (Lessing) Porter – misapplied]

MICROSERIS DOUGLASII (de Candolle) Schultz-Bipontinus subsp. *DOUGLASII*—(Figure 32). 2*n* = 18. Wool waste. From farther west.

Mikania scandens (Linnaeus) Willdenow—Climbing Hempweed (Figure 32). 2*n* = 38. Wet thickets, swamps, stream banks, pond or lake margins, marshes.

MULGEDIUM PULCHELLUM (Pursh) G. Don—Blue Lettuce (Figure 32). 2*n* = 18. Pond shores, fields. From farther west. [*LACTUCA PULCHELLA* (Pursh) de Candolle; *L. TATARICA* (Linnaeus) C. A. Meyer subsp. *PULCHELLA* (Pursh) Stebbins]

MYCELIS MURALIS (Linnaeus) Dumortier—(Figure 32). 2*n* = 18. Roadsides, woodland margins or openings, waste places. From Eurasia, northern Africa. [*LACTUCA MURALIS* (Linnaeus) Gaertner – invalid name]

NIPPONANTHEMUM NIPPONICUM (Franchet *ex* Maximowicz) Kitamura—Montauk Daisy (Figure 32). 2*n* = 18. Beaches. From Japan. [*CHRYSANTHEMUM NIPPONICUM* (Franchet *ex* Maximowicz) Sprenger]

Oclemena acuminata (Michaux) Greene—Mountain Aster (Figure 33). 2*n* = 18. Woods, often acidic. [*Aster acuminatus* Michaux]

Oclemena nemoralis (Aiton) Greene—Bog Aster (Figure 33). 2*n* = 18. *Sphagnum* bogs and shores. [*Aster nemoralis* Aiton]

— *Oclemena* hybrid—

Oclemena × *blakei* (Porter) G.L. Nesom—(Figure 33). [*O. acuminata* (Michaux) Greene × *O. nemoralis* (Aiton) Greene; *Aster blakei* (Porter) House]

Omalotheca supina (Linnaeus) de Candolle—Alpine Cudweed (Figure 33). 2*n* = 28. Granitic alpine areas. [*Gnaphalium supinum* Linnaeus]

Omalotheca sylvatica (Linnaeus) Schultz-Bipontinus & F.W. Schultz—Heath Cudweed (Figure 33). 2*n* = 56. Clearings, rocky slopes, woods borders. [*Gnaphalium sylvaticum* Linnaeus]

ONOPORDUM ACANTHIUM Linnaeus subsp. *ACANTHIUM*—Cotton Thistle (Figure 33). 2*n* = 34. Waste places, roadsides, gravelly, sandy tidal shores. From Eurasia.

Packera aurea (Linnaeus) Á. Löve & D. Löve—Golden Ragwort (Figure 33). 2*n* = 44. Swamps, low, wet woods, brooksides, springs, stream banks, meadows, moist roadsides. [*Senecio aureus* Linnaeus var. *aureus*; *S. aureus* var. *aquilonius* Fernald; *S. aureus* var. *gracilis* (Pursh) Hooker; *S. aureus* var. *intercursus* Fernald]

Packera obovata (Muhlenberg *ex* Willdenow) W.A. Weber & Á. Löve—(Figure 33). 2*n* = 44, 88, 90. Fields, woods, stream banks, rocky slopes, in calcareous soil. [*Senecio obovatus* Muhlenberg *ex* Willdenow]

Packera paupercula (Michaux) Á. Löve & D. Löve—Balsam Groundsel (Figure 33). 2*n* = 44, 46, 92. Stream banks, rocky, open outcrops, slopes and woods. [*S. gaspensis* Greenman; *Senecio pauperculus* Michaux var. *pauperculus*; *S. pauperculus* var. *balsamitae* (Muhlenberg *ex* Willdenow) Fernald; *S. pauperculus* var. *praelongus* (Greenman) House]

Packera schweinitziana (Nuttall) W.A. Weber & Á. Löve—(Figure 34). 2*n* = 44. Meadows, shores, swamps, thickets, fields, roadside ditches. [*Senecio robbinsii* Oakes *ex* Rusby]

PALAFOXIA TEXANA de Candolle—(Figure 34). 2*n* = 22. Riverbanks. From farther south.

PARTHENIUM HYSTEROPHORUS Linnaeus—Santa Maria (Figure 34). 2*n* = 34. Waste places. From Mexico, Central America, Caribbean, South America.

PARTHENIUM INTEGRIFOLIUM Linnaeus—Wild Quinine (Figure 34). 2*n* = 72. Railroads, fields. From farther west and south.

Petasites frigidus (Linnaeus) Fries var. *palmatus* (Aiton) Cronquist—Sweet Coltsfoot (Figure 34). 2*n* = 60, 61, 62. Swampy woods, streambanks, damp clearings, roadside ditches. [*P. palmatus* (Aiton) A. Gray]

PETASITES HYBRIDUS (Linnaeus) G. Gaertner, B. Meyer & Scherbius—Butterbur (Figure 34). 2*n* = 60. Brooksides, waste places. From Eurasia.

PICRIS HIERACIOIDES Linnaeus—(Figure 34). 2*n* = 10. Dry fields, roadsides, waste places. From Eurasia.

Pityopsis falcata (Pursh) Nuttall—(Figure 34). 2*n* = 18. Dry, sandy, open soil, railroads. [*Chrysopsis falcata* (Pursh) Elliott]

PLUCHEA CAMPHORATA (Linnaeus) de Candolle—Spicy Fleabane (Figure 34). 2*n* = ? Salt marshes. From farther south.

Pluchea odorata (Linnaeus) Cassini var. *succulenta* (Fernald) Cronquist—Saltmarsh Fleabane (Figure 35). 2*n* = 20. Salt marshes, sandy shores of coastal ponds, tidal flats. [*P. purpurascens* (Swartz) de Candolle var. *succulenta* Fernald]

Polymnia canadensis Linnaeus—(Figure 35). 2*n* = 30. Damp, calcareous woods.

Prenanthes alba Linnaeus—White Lettuce (Figure 35). 2*n* = 32. Rich woods, thickets, mostly moist. [*Nabalus albus* (Linnaeus) Hooker]

Prenanthes altissima Linnaeus—(Figure 35). 2*n* = 16. Rich, moist woods, shaded roadsides. [*Nabalus altissimus* (Linnaeus) Hooker]

Prenanthes boottii (de Candolle) D. Dietrich—Alpine Rattlesnake-root (Figure 35). 2*n* = 32. Alpine areas. [*Nabalus boottii* de Candolle]

Prenanthes racemosa Michaux—Glaucous White Lettuce (Figure 35). 2*n* = 16. River shores. [*Nabalus racemosus* (Michaux) Hooker]

Prenanthes serpentaria Pursh—Cankerweed (Figure 35). 2*n* = 16. Dry, open woods, clearings, woodland borders. [*Nabalus serpentarius* (Pursh) Hooker]

Prenanthes trifoliolata (Cassini) Fernald—(Figure 35). 2*n* = 16. Open woods, thickets, clearings. [*P. trifoliolata* var. *nana* (Bigelow) Fernald; *Nabalus trifoliolatus* Cassini]

— *Prenanthes* hybrid—

Prenanthes × *mainensis* A. Gray (*pro species*)—(Figure 35). [*P. racemosa* Michaux × *P. trifoliolata* (Cassini) Fernald]

Pseudognaphalium macounii (Greene) Kartesz—(Figure 36). 2*n* = ? Dry fields, clearings, woods margins, roadsides. [*Gnaphalium macounii* Greene; *G. viscosum* Kunth – misapplied; *P. viscosum* Kunth) Anderberg – misapplied]

Pseudognaphalium micradenium (Weatherby) G.L. Nesom—(Figure 36). 2*n* = ? Dry, sandy woods, thickets, clearings, roadsides. [*Gnaphalium obtusifolium* Linnaeus var. *micradenium* Weatherby]

Pseudognaphalium obtusifolium (Linnaeus) Hilliard & B.L. Burtt—Sweet Everlasting (Figure 36). 2*n* = ? Dry fields, woods margins, dry clearings, roadsides. [*Gnaphalium obtusifolium* Linnaeus var. *obtusifolium*; *Gnaphalium obtusifolium* Linnaeus var. *praecox* Fernald]

RATIBIDA COLUMNIFERA (Nuttall) Wooten & Standley—(Figure 36). 2*n* = 28. Fields. From farther west.

RATIBIDA PINNATA (Ventenat) Barnhart—Grayhead Prairie-coneflower (Figure 36). 2*n* = 28. Waste areas, roadsides. From farther west and south.

RUDBECKIA FULGIDA Aiton var. *SPECIOSA* (Wenderoth) Perdue—(Figure 36). 2*n* = ca. 76. Open swamp, roadsides in moist soil. From farther west and south. [*R. SPECIOSA* Wenderoth]

Rudbeckia hirta Linnaeus var. *hirta*—(Figure 36). 2*n* = 38. Open woods, fields, roadsides.

Rudbeckia hirta Linnaeus var. *pulcherrima* Farwell—Black-eyed Susan (Figure 36). 2*n* = 38. Fields, meadows, clearings, roadsides. [*R. bicolor* Nuttall; *R. serotina* Nuttall var. *serotina*; *R. serotina* var. *lanceolata* (Bischoff) Fernald & B. G. Schubert; *R. serotina* var. *sericea* (T. V. Moore) Fernald & B. G. Schubert]

Rudbeckia laciniata Linnaeus var. *laciniata*—(Figure 36). 2*n* = 36, 54. Swampy thickets, rich, low ground, stream banks, meadows, roadsides. [*R. laciniata* var. *hortensia* L. H. Bailey]

RUDBECKIA SUBTOMENTOSA Pursh—Sweet Coneflower (Figure 37). 2*n* = 38. Roadsides. From farther west.

RUDBECKIA TRILOBA Linnaeus var. *TRILOBA*—Brown-eyed Susan (Figure 37). 2*n* = 38, 57. Field, waste places, roadsides, woods, meadows, stream banks. From farther south and west.

SANTOLINA CHAMAECYPARISSIUS Linnaeus—Lavender-cotton (Figure 37). 2*n* = 18. Dry, sandy banks, roadsides, thin, pine woods. From Europe.

Sclerolepis uniflora (Walter) Britton, Sterns, & Poggenberg—Pink Bogbutton (Figure 37). 2*n* = 30. Sandy or sphagnous shores or shallow water of ponds and lakes.

SCORZONEROIDES AUTUMNALIS (Linnaeus) Moench—Fall Dandelion (Figure 37). 2*n* = 12, 24. Fields, meadows, roadsides. From Eurasia. [*LEONTODON AUTUMNALIS* Linnaeus var. *AUTUMNALIS*; *L. AUTUMNALIS* var. *PRATENSIS* Koch]

SENECIO EREMOPHILUS Richardson var. *MACDOUGALII* (A. Heller) Cronquist—(Figure 37). 2*n* = 40. From farther west. [*S. MACDOUGALII* A. Heller]

SENECIO SYLVATICUS Linnaeus—Heath Groundsel (Figure 37). 2*n* = 40. Cliff crevices, sandy beaches, gravelly seashores, waste places, roadsides. From Europe.

SENECIO VISCOSUS Linnaeus—(Figure 37). 2*n* = 40. Waste places. From Eurasia.

SENECIO VULGARIS Linnaeus—Common Groundsel (Figure 37). 2*n* = 40. Roadsides, waste places. From Eurasia, northern Africa.

Sericocarpus asteroides (Linnaeus) Nees—Toothed White-top Aster (Figure 38). 2*n* = 18. Dry woods, clearings, and fields, roadsides. [*Aster paternus* Cronquist]

Sericocarpus linifolius (Linnaeus) Britton, Sterns, & Poggenberg—(Figure 38). 2*n* = 18. Dry woods, clearings, and fields, roadsides. [*Aster solidagineus* (Michaux) Nees]

SIGESBECKIA JORULLENSIS Kunth—(Figure 38). 2*n* = 30. Waste places. From Mexico, Central America, South America.

SILPHIUM PERFOLIATUM Linnaeus var. *PERFOLIATUM*—Cup-plant (Figure 38). 2*n* = 14. Moist thickets, low, open woods, moist roadsides, waste places. From farther west and south.

SILYBUM MARIANUM (Linnaeus) Gaertner—Milk Thistle (Figure 38). $2n = 34$. Waste places. From Eurasia, northern Africa.

Solidago altissima Linnaeus subsp. *altissima*—(Figure 38). $2n = 36, 54$. Clearings, fields, meadows, thickets, roadsides, waste places. [*S. canadensis* Linnaeus var. *scabra* (Muhlenberg *ex* Willdenow) Torrey & A. Gray]

Solidago arguta Aiton var. *arguta*—(Figure 38). $2n = 18$. Open woods, clearings, roadsides.

Solidago bicolor Linnaeus—Silverrod (Figure 38). $2n = 18$. Dry, open, sterile soils, open woods, rocky slopes, roadsides.

Solidago caesia Linnaeus var. *caesia*—Blue-stem Goldenrod (Figure 38). $2n = 18$. Open or rich woods, woods margins, clearings, thickets.

Solidago canadensis Linnaeus var. *canadensis*—(Figure 39). $2n = 18$. Fields, roadsides, thickets, clearings, open woods.

Solidago canadensis Linnaeus var. *hargeri* Fernald—(Figure 39). $2n = 18$. Fields, roadsides, thickets, clearings.

Solidago flexicaulis Linnaeus—Zig-zag Goldenrod (Figure 39). $2n = 18, 36$. Rich woods, thickets.

Solidago gigantea Aiton—(Figure 39). $2n = 18, 36, 54$. Damp thickets, meadows, stream banks, fields, swamps, open woods, roadsides. [*S. gigantea* var. *leiophylla* Fernald; *S. gigantea* var. *serotina* (Kuntze) Cronquist]

Solidago hispida Muhlenberg *ex* Willdenow—(Figure 39). $2n = 18$. Dry, open, rocky woods, usually in calcareous soil. [*S. hispida* var. *lanata* (Hooker) Fernald; *S. bicolor* Linnaeus var. *concolor* Torrey & A. Gray; *S. bicolor* var. *lanata* (Hooker) A. Gray]

Solidago juncea Aiton—Early Goldenrod (Figure 39). $2n = 18$. Fields, dry, open soil.

Solidago latissimifolia Miller—(Figure 39). $2n = 18, 36, 54$. Swamps, meadows, low thickets. [*S. elliottii* Torrey & A. Gray var. *elliottii*; *S. elliottii* var. *ascendans* Fernald]

Solidago leiocarpa de Candolle—Cutler's Alpine Goldenrod (Figure 39). $2n = 36$. Granitic alpine areas. [*S. cutleri* Fernald]

Solidago lepida de Candolle subsp. *fallax* (Fernald) Semple—(Figure 39). $2n = 18$. Thickets, shores. [*S. lepida* var. *molina* Fernald]

Solidago macrophylla Banks *ex* Pursh—(Figure 40). $2n = 18$. Shaded, rocky, mountain slopes. [*S. macrophylla* var. *thyrsoidea* (E. Meyer) Fernald]

Solidago multiradiata Aiton—Northern Mountain Goldenrod (Figure 40). $2n = 18, 36$. Rocky, alpine slopes.

Solidago nemoralis Aiton subsp. *nemoralis*—Gray Goldenrod (Figure 40). $2n = 18, 36$. Dry fields, open, sandy or gravelly soils, roadsides.

Solidago odora Aiton subsp. *odora*—Sweet Goldenrod (Figure 40). 2*n* = 18. Dry, open woods, clearings, roadsides.

Solidago patula Muhlenberg *ex* Willdenow subsp. *patula*—Rough-leaved Goldenrod (Figure 40). 2*n* = 18. Calcareous swamps, meadows, swales, wet woods and moist roadsides.

Solidago ptarmicoides (Torrey & Gray) B. Boivin—Snowy Aster (Figure 40). 2*n* = 18. Dry, usually calcareous, ledges. [*Aster ptarmicoides* Torrey & Gray; *Oligoneuron album* (Nuttall) G.L. Nesom]

Solidago puberula Nuttall subsp. *puberula*—(Figure 40). 2*n* = 18. Dry, open woods, clearings, sandy or rocky shores of ponds and streams, roadsides.

Solidago rigida Linnaeus subsp. *rigida*—(Figure 40). 2*n* = 18, 36. Dry, open woods, clearings, thickets, near salt marshes, roadsides. [*Oligoneuron rigidum* (Linnaeus) Small]

Solidago rugosa Miller var. *rugosa*—(Figure 40). 2*n* = 18, 36. Moist, open soil, fields, thickets, borders of woods and streams. [*S. rugosa* var. *villosa* (Pursh) Fernald]

Solidago rugosa Miller var. *sphagnophila* C. Graves—(Figure 41). 2*n* = 18, 54. Swamps, meadows, wet thickets. [*S. aestivalis* E.P. Bicknell]

Solidago rugosa Miller subsp. *aspera* (Aiton) Cronquist—(Figure 41). 2*n* = 18, 36. Open woods, fields, thickets, roadsides. [*S. aspera* Aiton]

Solidago sempervirens Linnaeus subsp. *sempervirens*—Seaside Goldenrod (Figure 41). 2*n* = 18. Salt marshes, seashores, tidal rivers, heavily-salted roadsides.

Solidago sempervirens Linnaeus subsp. *mexicana* (Linnaeus) Semple—Seaside Goldenrod (Figure 41). 2*n* = 18. Salt marshes, seashores, tidal rivers, heavily-salted roadsides.

Solidago simplex Kunth var. *monticola* (Porter) G.S. Ringius—(Figure 41). 2*n* = 36. Dry, serpentine soils, rocky, granite barrens below alpine slopes. [*S. glutinosa* Nuttall var. *randii* (in part); *S. randii* (Porter) Britton (in part)]

Solidago simplex Kunth var. *racemosa* (Greene) G.S. Ringius—Riverbank Goldenrod (Figure 41). 2*n* = 36. Dry, usually calcareous rocks and ledges along rivers. [*S. glutinosa* Nuttall var. *racemosa* (Greene) Cronquist; *S. racemosa* Greene; *S. randii* (Porter) Britton (in part)]

Solidago speciosa Nuttall var. *speciosa*—(Figure 41). 2*n* = 18, 36, 54. Fields, open woods, thickets, roadsides.

Solidago squarrosa Muhlenberg—Stout Goldenrod (Figure 41). 2*n* = 18. Dry or rocky, open woods, rocky openings, thickets, fields, roadsides.

Solidago uliginosa Nuttall—Bog Goldenrod (Figure 41). 2*n* = 18, 36. Bogs, swamps, meadows, marshes, fens, shores, usually sphagnous habitats. [*S. uliginosa* var. *linoides* (Torrey & A. Gray) Fernald; *S. uliginosa* var. *terra-novae* (Torrey & A. Gray) Fernald; *S. purshii* Porter]

Solidago ulmifolia Muhlenberg *ex* Willdenow var. *ulmifolia*—(Figure 42). 2*n* = 18. Dry, open or rocky woods, thickets, occasionally meadows.

— *Solidago* hybrids—

Solidago altissima Linnaeus subsp. *altissima* × *S. rugosa* Miller var. *rugosa*—(Figure 42).

Solidago altissima Linnaeus subsp. *altissima* × *S. sempervirens* Linnaeus subsp. *sempervirens*—(Figure 42).

Solidago arguta Aiton var. *arguta* × *S. bicolor* Linnaeus—(Figure 42).

Solidago arguta Aiton var. *arguta* × *S. juncea* Aiton—(Figure 42).

Solidago arguta Aiton var. *arguta* × *nemoralis* Aiton subsp. *nemoralis*—(Figure 42).

Solidago arguta Aiton var. *arguta* × *S. patula* Muhlenberg *ex* Willdenow subsp. *patula*—(Figure 42).

Solidago × *asperula* Desfontaines (*pro species*)—(Figure 42). [*S. rugosa* Miller var. *rugosa* × *S. sempervirens* Linnaeus subsp. *sempervirens*]

Solidago bicolor Linnaeus × *S. caesia* Linnaeus var. *caesia*—(Figure 42).

Solidago bicolor Linnaeus × *S. hispida* Muhlenberg *ex* Willdenow—(Figure 43).

Solidago bicolor Linnaeus × *S. nemoralis* Aiton subsp. *nemoralis*—(Figure 43).

Solidago bicolor Linnaeus × *S. odora* Aiton subsp. *odora*—(Figure 43).

Solidago bicolor Linnaeus × *S. puberula* Nuttall subsp. *puberula*—(Figure 43).

Solidago bicolor Linnaeus × *S. rugosa* Miller var. *rugosa*—(Figure 43).

Solidago caesia Linnaeus var. *caesia* × *S. flexicaulis* Linnaeus—(Figure 43).

Solidago caesia Linnaeus var. *caesia* × *S. juncea* Aiton—(Figure 43).

Solidago caesia Linnaeus var. *caesia* × *S. rugosa* Miller var. *rugosa*—(Figure 43).

Solidago × *calcicola* (Fernald) Fernald (*pro species*)—(Figure 43). [*S. macrophylla* Banks *ex* Pursh × *S. ?*]

Solidago canadensis Linnaeus var. *canadensis* × *S. gigantea* Aiton—(Figure 44).

Solidago canadensis Linnaeus var. *canadensis* × *S. juncea* Aiton—(Figure 44).

Solidago canadensis Linnaeus var. *canadensis* × *S. rugosa* Miller var. *rugosa*—(Figure 44).

Solidago canadensis Linnaeus var. *hargeri* Fernald × *S. rugosa* Miller var. *rugosa*—(Figure 44).

Solidago gigantea Aiton × *S. rugosa* Miller var. *rugosa*—(Figure 44).

Solidago gigantea Aiton × *S. sempervirens* Linnaeus subsp. *sempervirens*—(Figure 44).

Solidago juncea Aiton × *S. nemoralis* Aiton subsp. *nemoralis*—(Figure 44).

Solidago juncea Aiton × *S. sempervirens* Linnaeus subsp. *sempervirens*—(Figure 44).

Solidago latissimifolia Miller × *S. rugosa* Miller var. *sphagnophila* C. Graves—(Figure 44).

Solidago leiocarpa de Candolle × *S. simplex* Kunth var. *monticola* (Porter) G. S. Ringius—(Figure 45).

Solidago macrophylla Banks *ex* Pursh × *S. rugosa* Miller var. *rugosa*—(Figure 45).

Solidago nemoralis Aiton subsp. *nemoralis* × *S. sempervirens* Linnaeus subsp. *sempervirens*—(Figure 45).

Solidago nemoralis Aiton subsp. *nemoralis* × *S. speciosa* Nuttall var. *speciosa*—(Figure 45).

Solidago odora Aiton subsp. *odora* × *S. rugosa* Miller var. *rugosa*—(Figure 45).

Solidago rugosa Miller var. *rugosa* × *S. ulmifolia* Muhlenberg *ex* Willdenow var. *ulmifolia*—(Figure 45).

SONCHUS ARVENSIS Linnaeus subsp. *ARVENSIS*—Corn Sow-thistle (Figure 45). $2n = 54$. Waste places, fields, roadsides, shores, usually wet sites. From Eurasia, northern Africa.

SONCHUS ARVENSIS Linnaeus subsp. *ULIGINOSUS* (M. Bieberstein) Nyman—(Figure 45). $2n = 36$. Waste places, fields, roadsides, shores, usually wet sites. From Eurasia. [*S. ARVENSIS* var. *GLABRESCENS* Günther, Grabowski, & Wimmer; *S. ULIGINOSUS* M. Bieberstein]

SONCHUS ASPER (Linnaeus) Hill—Prickly Sow-thistle (Figure 45). $2n = 18$. Waste places, roadsides, sea shores. From Eurasia, northern Africa.

SONCHUS OLERACEUS Linnaeus—Common Sow-thistle (Figure 46). $2n = 32, 36$. Waste places, fields, roadsides, sea shores. From Eurasia, northern Africa.

Symphyotrichum anticostense (Fernald) G.L. Nesom—(Figure 46). $2n = 80$. Gravelly, river shores. [*Aster anticostensis* Fernald]

Symphyotrichum boreale (Torrey & A. Gray) Á. Löve & D. Löve—Northern Bog Aster (Figure 46). $2n = 16, 32, 48, 64$. Bogs, swamps, shores, mostly in calcareous areas. [*Aster borealis* (Torrey & A. Gray) Provancher; *A. junciformis* Rydberg]

SYMPHYOTRICHUM CILIATUM (Ledebour) G.L. Nesom—Rayless Aster (Figure 46). $2n = 14$. Roadsides, waste places. From farther west. [*ASTER BRACHYACTIS* S. F. Blake]

Symphyotrichum ciliolatum (Lindley) Á. Löve & D. Löve—(Figure 46). $2n = 48$. Dry woods, thickets, shores, clearings, roadsides. [*Aster ciliolatus* Lindley]

Symphyotrichum concolor (Linnaeus) G.L. Nesom var. *concolor*—Eastern Silvery Aster (Figure 46). $2n = 8$. Dry, open, sandy woods, fields and barrens, roadsides. [*Aster concolor* Linnaeus]

Symphyotrichum cordifolium (Linnaeus) G.L. Nesom—Common Blue Wood Aster (Figure 46). $2n = 16, 32$. Thickets, open woods, clearings, fields, roadsides, often in moist soil. [*Aster cordifolius* Linnaeus var. *cordifolius*; *A. cordifolius* var. *furbishiae* Fernald; *A. cordifolius* var. *polycephalus* Porter; *A. cordifolius* var. *racemiflorus* Fernald; *A. lowrieanus* Porter var.

lowrieanus; *A. lowrieanus* var. *lanceolatus* (Porter) Porter; *A. sagittifolius* Wedemeyer *ex* Willdenow]

Symphyotrichum dumosum (Linnaeus) G.L. Nesom—Rice-button Aster (Figure 46). 2*n* = 16, 32. Dry, open woods, fields, thickets, roadsides. [*Aster dumosus* Linnaeus var. *dumosus*; *A. dumosus* var. *cordifolius* (Michaux) Torrey & A. Gray; *A. dumosus* var. *strictior* Torrey & A. Gray; *A. dumosus* var. *subulifolius* Torrey & A. Gray]

Symphyotrichum ericoides (Linnaeus) G.L. Nesom var. *ericoides*—White Heath Aster (Figure 46). 2*n* = 10, 20. Dry fields and clearings, dry, open woods, waste places, roadsides, sometimes in moist, open, sandy sites. [*Aster ericoides* Linnaeus]

SYMPHYOTRICHUM FRONDOSUM (Nuttall) G.L. Nesom—(Figure 47). 2*n* = 14. Wool waste. From farther west. [*Aster frondosus* (Nuttall) Torrey & A. Gray]

Symphyotrichum laeve (Linnaeus) Á. Löve & D. Löve var. *laeve*—Smooth Aster (Figure 47). 2*n* = 48. Dry fields, open woods, roadsides, dry, open, sites. [*Aster laevis* Linnaeus]

Symphyotrichum lanceolatum (Willdenow) G.L. Nesom var. *lanceolatum*—Panicled Aster (Figure 47). 2*n* = 32, 40, 48, 56, 64. Meadows, wet thickets, shores. [*Aster lanceolatus* Willdenow var. *lanceolatus*; *A. lanceolatus* var. *simplex* (Willdenow) A. G. Jones; *A. simplex* Willdenow var. *simplex*; *A. simplex* var. *ramosissimus* (Torrey & A. Gray) Cronquist]

Symphyotrichum lanceolatum (Willdenow) G.L. Nesom var. *interior* (Wiegand) G. L. Nesom—(Figure 47). 2*n* = 48, 64. Gravelly or rocky shores, often calcareous. [*Aster lanceolatus* Willdenow var. *interior* Semple & Chmielewski; *A. simplex* Willdenow var. *interior* (Wiegand) Cronquist]

Symphyotrichum lanceolatum (Willdenow) G.L. Nesom var. *latifolium* (Semple & Chmielewski) G.L. Nesom—(Figure 47). 2*n* = 64. Thickets, woods margins, shores.

Symphyotrichum lateriflorum (Linnaeus) Á. Löve & D. Löve—Calico Aster (Figure 47). 2*n* = 16, 32, 48. Woods, swamps, fields, thickets, clearings, shores, meadows, moist ledges, roadsides. [*Aster lateriflorus* (Linnaeus) Britton; *A. lateriflorus* var. *angustifolius* Wiegand; *A. lateriflorus* var. *pendulus* (Aiton) E. S. Burgess; *A. lateriflorus* var. *tenuipes* Wiegand; *A. vimineus* Lamarck]

Symphyotrichum novae-angliae (Linnaeus) G.L. Nesom—New England Aster (Figure 47). 2*n* = 10. Fields, damp thickets, shores, meadows, clearings, open woods, roadsides. [*Aster novae-angliae* Linnaeus]

Symphyotrichum novi-belgii (Linnaeus) G.L. Nesom var. *novi-belgii*—New York Aster (Figure 47). 2*n* = 48. Swamps, salt marshes, damp thickets, shores, sea beaches, moist woods, meadows, roadsides. [*Aster foliaceus* Lindley *ex* de Candolle – misapplied; *A. foliaceus* var. *arcuans* Fernald; *A. johannensis* Fernald var. *johannensis*; *A. longifolius* Lamarck; *A. novi-belgii* Linnaeus var. *novi-belgii*]

Symphyotrichum novi-belgii (Linnaeus) G.L. Nesom var. *elodes* (Torrey & A. Gray) G.L. Nesom—(Figure 47). 2*n* = 48. Salt marshes, pine barrens. [*Aster novi-belgii* Linnaeus var. *elodes* (Torrey & A. Gray) A. Gray]

Symphyotrichum novi-belgii (Linnaeus) G.L. Nesom var. *villicaule* (A. Gray) Labrecque & Brouillet—(Figure 48). 2*n* = 48. Gravelly or rocky, river shores, ledges. [*Aster johannensis* Fernald var. *villicaulis* (A. Gray) Fernald]

Symphyotrichum ontarionis (Wiegand) G.L. Nesom var. *ontarionis*—(Figure 48). 2*n* = 32. Thickets, meadows, alluvial woods and shores, often in calcareous soil. [*Aster ontarionis* Wiegand]

Symphyotrichum patens (Aiton) G.L. Nesom var. *patens*—Late Purple Aster (Figure 48). 2*n* = 10, 20. Dry fields, open woods, clearings and roadsides. [*Aster patens* Aiton var. *patens*]

Symphyotrichum pilosum (Willdenow) G.L. Nesom var. *pilosum*—Frost Aster (Figure 48). 2*n* = 32, 40, 48. Dry fields, thickets, open woods, clearings and roadsides, often in sandy soil. [*Aster pilosus* Willdenow var. *pilosus*]

Symphyotrichum pilosum (Willdenow) G.L. Nesom var. *pringlei* (A. Gray) G.L. Nesom—(Figure 48). 2*n* = 48. Rocky, gravelly or sandy soil, often calcareous. [*Aster pilosus* Willdenow var. *demotus* S. F. Blake; *A. pilosus* var. *pringlei* S. F. Blake]

Symphyotrichum praealtum (Poiret) G.L. Nesom—Willow Aster (Figure 48). 2*n* = 32, 48, 64. Low thickets and woods, meadows. [*Aster praealtus* Poiret var. *praealtus*; *A. praealtus* var. *angustior* Wiegand]

Symphyotrichum prenanthoides (Muhlenberg *ex* Willdenow) G.L. Nesom—Zigzag Aster (Figure 48). 2*n* = 32. Moist thickets and fields, rich woods, shores, roadsides. [*Aster prenanthoides* Muhlenberg *ex* Willdenow]

Symphyotrichum puniceum (Linnaeus) Á. Löve & D. Löve var. *puniceum*—Swamp Aster (Figure 48). 2*n* = 16, 32. Low thickets, woods, swamps, meadows, shores, ditches, roadsides. [*S. firmum* (Nees) G.L. Nesom; *Aster puniceus* Linnaeus var. *puniceus*; *A. puniceus* var. *compactus* Fernald; *A. puniceus* var. *firmus* (Nees) Torrey & A. Gray; *A. puniceus* var. *oligocephalus* Fernald; *A. puniceus* var. *perlongus* Fernald]

Symphyotrichum racemosum (Elliott) G.L. Nesom—Small White Aster (Figure 48). 2*n* = 16. Fields, meadows, shores, woods, clearings, roadsides. [*Aster vimineus* Lamarck – misapplied; *A. vimineus* var. *subdumosus* Wiegand]

Symphyotrichum subulatum (Michaux) G.L. Nesom var. *subulatum*—Annual Saltmarsh Aster (Figure 49). 2*n* = 10. Salt marshes, salted highways. [*Aster subulatus* Michaux var. *subulatus*; *A. subulatus* var. *euroauster* Fernald & Griscom]

Symphyotrichum tenuifolium (Linnaeus) G.L. Nesom var. *tenuifolium*—Perennial Saltmarsh Aster (Figure 49). 2*n* = 10. Salt marshes, tidal shores. [*Aster tenuifolius* Linnaeus]

Symphyotrichum tradescantii (Linnaeus) G.L. Nesom—Shore Aster (Figure 49). 2*n* = 16, 32. Rocky or gravelly, freshwater shores, waste places. [*Aster tradescantii* Linnaeus]

Symphyotrichum undulatum (Linnaeus) G.L. Nesom—(Figure 49). 2*n* = 16, 32. Dry fields and open, deciduous woods, clearings, fields, roadsides. [*Aster undulatus* Linnaeus; *A. undulatus* var. *loriformis* E. S. Burgess]

Symphyotrichum urophyllum (Lindley *ex* de Candolle) G.L. Nesom—(Figure 49). 2*n* = 16. Dry open, woods, clearings and fields. [*Aster sagittifolius* Wedemeyer *ex* Willdenow – misapplied]

— *Symphyotrichum* hybrids—

Symphyotrichum × *amethystinum* (Nuttall) G.L. Nesom (*pro species*)—(Figure 49). [*S. ericoides* (Linnaeus) G.L. Nesom var. *ericoides* × *S. novae-angliae* (Linnaeus) G.L. Nesom; *Aster* × *amethystinus* Nuttall (*pro species*)]

Symphyotrichum ciliolatum (Lindley) Á. Löve & D. Löve × *S. prenanthoides* (Muhlenberg *ex* Willdenow) G.L. Nesom—(Figure 49).

Symphyotrichum ciliolatum (Lindley) Á. Löve & D. Löve × *S. puniceum* (Linnaeus) Á. Löve & D. Löve var. *puniceum*—(Figure 49).

Symphyotrichum cordifolium (Linnaeus) G.L. Nesom × *S. ericoides* (Linnaeus) G.L. Nesom var. *ericoides*—(Figure 49).

Symphyotrichum cordifolium (Linnaeus) G.L. Nesom × *S. lateriflorum* (Linnaeus) Á. Löve & D. Löve—(Figure 50).

Symphyotrichum cordifolium (Linnaeus) G.L. Nesom × *S. novi-belgii* (Linnaeus) G.L. Nesom var. *novi-belgii*—(Figure 50).

Symphyotrichum cordifolium (Linnaeus) G.L. Nesom × *S. pilosum* (Willdenow) G.L. Nesom var. *pringlei* (A. Gray) G.L. Nesom —(Figure 50).

Symphyotrichum cordifolium (Linnaeus) G.L. Nesom × *S. puniceum* (Linnaeus) Á. Löve & D. Löve var. *puniceum*—(Figure 50).

Symphyotrichum cordifolium (Linnaeus) G.L. Nesom × *S. undulatum* (Linnaeus) G.L. Nesom—(Figure 50).

Symphyotrichum dumosum (Linnaeus) G.L. Nesom × *S. lateriflorum* (Linnaeus) Á. Löve & D. Löve—(Figure 50).

Symphyotrichum dumosum (Linnaeus) G.L. Nesom × *S. puniceum* (Linnaeus) Á. Löve & D. Löve var. *puniceum*—(Figure 50).

Symphyotrichum dumosum (Linnaeus) G.L. Nesom × *S. racemosum* (Elliott) G.L. Nesom—(Figure 50).

Symphyotrichum dumosum (Linnaeus) G.L. Nesom × *S. tradescantii* (Linnaeus) G.L. Nesom—(Figure 50).

Symphyotrichum ericoides (Linnaeus) G.L. Nesom var. *ericoides* × *S. novi-belgii* (Linnaeus) G.L. Nesom var. *novi-belgii*—(Figure 51).

Symphyotrichum ericoides (Linnaeus) G.L. Nesom var. *ericoides* × *S. undulatum* (Linnaeus) G.L. Nesom—(Figure 51).

Symphyotrichum laeve (Linnaeus) Á. Löve & D. Löve var. *laeve* × *S. lanceolatum* (Willdenow) G.L. Nesom var. *lanceolatum*—(Figure 51).

Symphyotrichum laeve (Linnaeus) Á. Löve & D. Löve var. *laeve* × *S. praealtum* (Poiret) G.L. Nesom—(Figure 51). [*S. novi-belgii* (Linnaeus) G.L. Nesom var. *litoreum* (A. Gray) G.L. Nesom; *Aster novi-belgii* Linnaeus var. *litoreus* A. Gray; however, the parentage for this hybrid is in doubt]

Symphyotrichum laeve (Linnaeus) Á. Löve & D. Löve var. *laeve* × *S. racemosum* (Elliott) G.L. Nesom—(Figure 51).

Symphyotrichum laeve (Linnaeus) Á. Löve & D. Löve var. *laeve* × *S. undulatum* (Linnaeus) G.L. Nesom—(Figure 51).

Symphyotrichum lanceolatum (Willdenow) G.L. Nesom var. *lanceolatum* × *S. novae-angliae* (Linnaeus) G.L. Nesom—(Figure 51).

Symphyotrichum lanceolatum (Willdenow) G.L. Nesom var. *lanceolatum* × *S. novi-belgii* (Linnaeus) G.L. Nesom var. *novi-belgii*—(Figure 51).

Symphyotrichum lanceolatum (Willdenow) G.L. Nesom var. *lanceolatum* × *S. pilosum* (Willdenow) G.L. Nesom var. *pringlei* (A. Gray) G.L. Nesom—(Figure 51).

Symphyotrichum lanceolatum (Willdenow) G.L. Nesom var. *lanceolatum* × *S. praealtum* (Poiret) G.L. Nesom—(Figure 52).

Symphyotrichum lanceolatum (Willdenow) G.L. Nesom var. *lanceolatum* × *S. puniceum* (Linnaeus) Á. Löve & D. Löve var. *puniceum*—(Figure 52).

Symphyotrichum lanceolatum (Willdenow) G.L. Nesom var. *lanceolatum* × *S. tradescantii* (Linnaeus) G.L. Nesom—(Figure 52).

Symphyotrichum lateriflorum (Linnaeus) Á. Löve & D. Löve × *S. novi-belgii* (Linnaeus) G.L. Nesom var. *novi-belgii*—(Figure 52).

Symphyotrichum lateriflorum (Linnaeus) Á. Löve & D. Löve × *S. puniceum* (Linnaeus) Á. Löve & D. Löve var. *puniceum*—(Figure 52).

Symphyotrichum lateriflorum (Linnaeus) Á. Löve & D. Löve × *S. racemosum* (Elliott) G.L. Nesom—(Figure 52).

Symphyotrichum lateriflorum (Linnaeus) Á. Löve & D. Löve × *S. undulatum* (Linnaeus) G.L. Nesom—(Figure 52).

Symphyotrichum novi-belgii (Linnaeus) G.L. Nesom var. *novi-belgii* × *S. pilosum* (Willdenow) G.L. Nesom var. *pringlei* (A. Gray) G.L. Nesom—(Figure 52).

Symphyotrichum novi-belgii (Linnaeus) G.L. Nesom var. *novi-belgii* × *S. praealtum* (Poiret) G.L. Nesom—(Figure 52).

Symphyotrichum novi-belgii (Linnaeus) G.L. Nesom var. *novi-belgii* × *S. prenanthoides* (Muhlenberg *ex* Willdenow) G.L. Nesom—(Figure 53).

Symphyotrichum novi-belgii (Linnaeus) G.L. Nesom var. *novi-belgii* × *S. puniceum* (Linnaeus) Á. Löve & D. Löve var. *puniceum*—(Figure 53).

Symphyotrichum pilosum (Willdenow) G.L. Nesom var. *pilosum* × *S. undulatum* (Linnaeus) G.L. Nesom—(Figure 53).

Symphyotrichum × *tardiflorum* (Linnaeus) Greuter, Aghababian & Wagenitz—(Figure 53). [*S. cordifolium* (Linnaeus) G.L. Nesom × *S. puniceum* (Linnaeus) Á. Löve & D. Löve var. *puniceum*; *Aster tardiflorus* Linnaeus]

TAGETES ERECTA Linnaeus—African Marigold (Figure 53). $2n = 24, 48$. Waste places. From Mexico, Central and South America. [*T. PATULA* Linnaeus; *T. SIGNATA* Bartling; *T. TENUIFOLIA* Cavanilles]

TAGETES MINUTA Linnaeus—Southern Marigold (Figure 53). $2n = 48$. Waste places, fields. From South America.

TANACETUM BALSAMITA Linnaeus—Costmary (Figure 53). $2n = 54$. Roadsides. From Asia. [*CHRYSANTHEMUM BALSAMITA* (Linnaeus) Baillon]

Tanacetum bipinnatum (Linnaeus) Schultz-Bipontinus—(Figure 53). $2n = 18, 54$. Gravelly or sandy riverbanks. [*T. huronense* Nuttall var. *huronense*; *T. huronense* Nuttall var. *johannense* Fernald]

TANACETUM PARTHENIUM (Linnaeus) Schultz-Bipontinus—Feverfew (Figure 53). $2n = 18$. Roadsides, waste places. From Europe. [*CHRYSANTHEMUM PARTHENIUM* (Linnaeus) Bernhardi]

TANACETUM VULGARE Linnaeus—Common Tansy (Figure 54). $2n = 18$. Roadsides, field borders, waste places. From Eurasia.

TARAXACUM ERYTHROSPERMUM Andrzejowski *ex* Besser—Red-seeded Dandelion (Figure 54). $2n = 16, 24, 32$ (Europe). Dry fields, woods, ledges, roadsides, and waste places. From Eurasia. [*T. LAEVIGATUM* (Willdenow) de Candolle – misapplied]

Taraxacum latilobum de Candolle—(Figure 54). $2n = ?$ Rich slopes and talus, often calcareous.

TARAXACUM OFFICINALE F.H. Wiggers—Common Dandelion (Figure 54). $2n = 16, 24, 26, 32, 40$. Fields, meadows, roadsides, waste places. From Europe.

TARAXACUM PALUSTRE (Lyons) Symons—(Figure 54). $2n = 24, 32, 40$ (European complex). Wet ditches, roadsides, fields and waste places. From Europe. [*T. OFFICINALE* F. H. Wiggers var. *PALUSTRE* Blytt – misapplied]

THYMOPHYLLA TENUILOBA (de Candolle) Small var. *TENUILOBA*—Dahlberg Daisy (Figure 54). $2n = 16, 24, 32, 40$. From Texas, Mexico. [*DYSSODIA TENUILOBA* (de Candolle) B. L. Robinson]

TRAGOPOGON DUBIUS Scopoli—Yellow Salsify (Figure 54). $2n = 12$. Fields, roadsides, waste places. From Eurasia. [*T. MAJOR* Jacquin]

TRAGOPOGON PORRIFOLIUS Linnaeus—Salsify (Figure 54). $2n = 12$. Fields, roadsides. From Eurasia, northern Africa.

TRAGOPOGON PRATENSIS Linnaeus—Goat's-beard (Figure 54). 2*n* = 12. Fields, meadows, roadsides. From Eurasia.

TRIPLEUROSPERMUM INODORUM (Linnaeus) Schultz-Bipontinus—Scentless Chamomile (Figure 55). 2*n* = 18, 36. Fields, roadsides, waste places. From Eurasia. [*T. MARITIMUM* (Linnaeus) W. D. J. Koch subsp. *INODORUM* (Linnaeus) Applequist; *MATRICARIA MARITIMA* Linnaeus var. *AGRESTIS* (Knaf) Wilmott; *M. PERFORATA* Mérat]

TRIPLEUROSPERMUM MARITIMUM (Linnaeus) W.D. J. Koch subsp. *MARITIMUM*—Sea Mayweed (Figure 55). 2*n* = 18, 36. Waste places and roadsides near the coast. From Europe. [*MATRICARIA MARITIMA* Linnaeus var. *MARITIMA*]

TUSSILAGO FARFARA Linnaeus—Coltsfoot (Figure 55). 2*n* = 60. Brooksides, moist banks, railroads, waste places, roadsides, trail edges. From Eurasia, northern Africa.

Verbesina alternifolia (Linnaeus) Britton *ex* Kearney—Wingstem (Figure 55). 2*n* = 68. Woods borders, thickets, along streams, in rich soil. [*Actinomeris alternifolia* (Linnaeus) de Candolle]

VERBESINA ENCELIOIDES (Cavanilles) Bentham & Hooker f. *ex* A. Gray—Golden Crownbeard (Figure 55). 2*n* = 34. Wool waste. From farther west. [*V. ENCELIOIDES* var. *EXAURICULATA* B. L. Robinson & Greenman]

VERNONIA FASCICULATA Michaux—Western Ironweed (Figure 55). 2*n* = 34. Sandy fields, wool waste. From farther west.

VERNONIA MISSURICA Rafinesque—(Figure 55). 2*n* = 34. Sandy fields, wool waste. From farther south and west.

Vernonia noveboracensis (Linnaeus) Michaux—(Figure 55). 2*n* = 34. Meadows, marshes, along streams, roadside ditches, swamps, wet pastures.

— *Vernonia* hybrid—

VERNONIA × *PERALTA* Daniels—(Figure 55). [*V. BALDWINII* Torrey × *V. MISSURICA* Rafinesque]

XANTHISMA GRACILE (Nuttall) D.R. Morgan & R.L. Hartman—(Figure 56). 2*n* = 4, 6, 8. Wool waste. From farther west. [*HAPLOPAPPUS GRACILIS* (Nuttall) A. Gray]

XANTHIUM SPINOSUM Linnaeus—Spiny Cocklebur (Figure 56). 2*n* = 36. Waste places. Possibly from South America. [*X. AMBROSIOIDES* Hooker & Arnott]

Xanthium strumarium Linnaeus—Common Cocklebur (Figure 56). 2*n* = 36. Shores, salt marshes, waste places. [*X. chinense* Miller; *X. curvescens* Millspaugh & Sherff; *X. echinatum* Murray; *X. italicum* Moretti; *X. oligacanthium* Piper; *X. orientale* Linnaeus; *X. oviforme* Wallroth; *X. pensylvanicum* Wallroth; *X. speciosum* Kearney; *X. wootonii* Cockerell]

XEROCHRYSUM BRACTEATUM (Ventenat) Tzvelev—Golden Everlasting (Figure 56). 2*n* = 24, 26, 28. Waste places. From Australia. [*HELICHRYSUM BRACTEATUM* (Ventenat) Andrews]

ZINNIA ELEGANS Jacquin—Garden Zinnia (Figure 56). $2n = 24$. Waste places. From Mexico. [*Z. VIOLACEA* Cavanilles]

ACKNOWLEDGMENTS

We thank the curators and directors of the herbaria of the New England Botanical Club, the Harvard University Herbaria, the University of Massachusetts, and the University of Vermont for allowing access to their collections. For the University of Maine and University of Connecticut herbaria we used their exceptional online databases of specimens. We are grateful also to Karen Searcy and Roberta Lombardi for facilitating access to the herbarium and to the notebooks of Harry E. Ahles at the University of Massachusetts (Amherst) and to Dr. Searcy for kindly answering requests for information after our visit. James Hinds generously checked information on voucher specimens at the University of Maine (Orono). The following persons also checked certain records for us at their respective institutions: Janet Sullivan, Emily Wood, and Elizabeth Allen. In particular we thank the following individuals for repeated checking of specimens at their institution: Robert Capers of the University of Connecticut, Craig D. Layne of Dartmouth College, and Alina Freire-Fierro of The Academy of Natural Sciences of Philadelphia. James Morefield kindly provided information that aided in locating voucher specimens. John T. Kartesz and Misako Nishino generously provided the latest draft version of the Floristic Synthesis of North America, which was consulted for reports of occurrence and the sources of such reports. We thank Kanchi Gandhi for nomenclatural advice.

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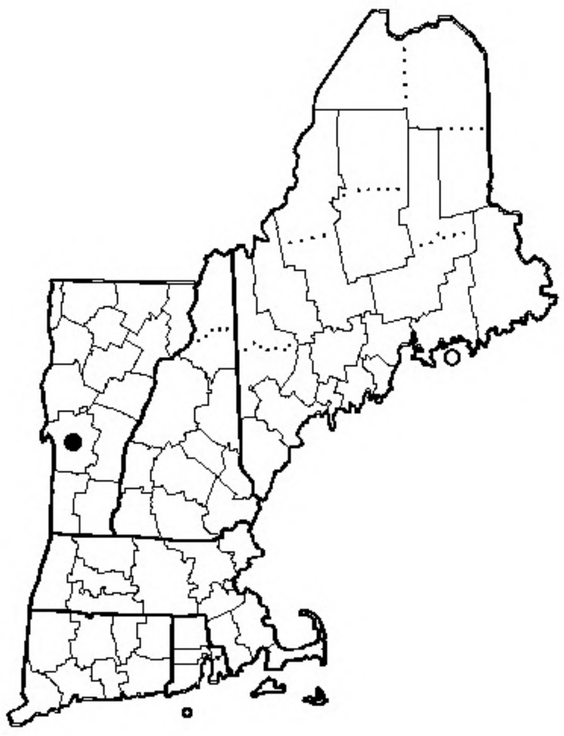
Figure 1. Key map for counties of the New England states (and Mt. Desert Island, Maine; Block Island, Rhode Island; arbitrary divisions of larger Maine counties and of Coös County, New Hampshire).



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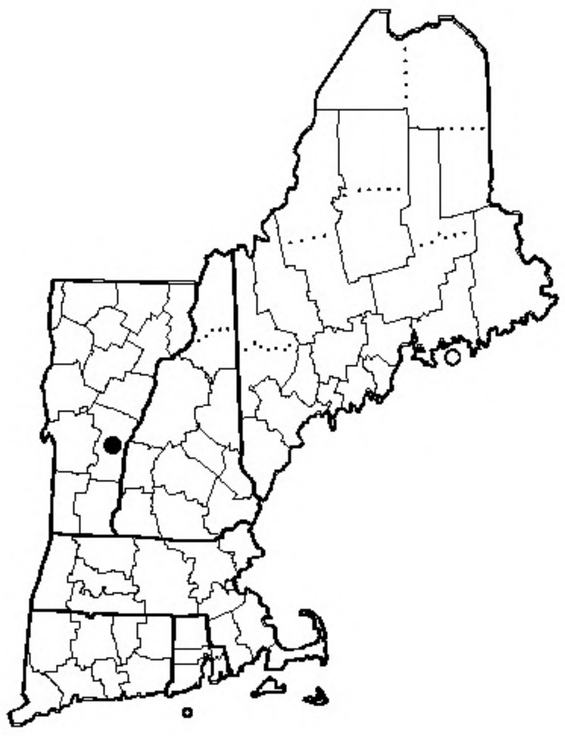

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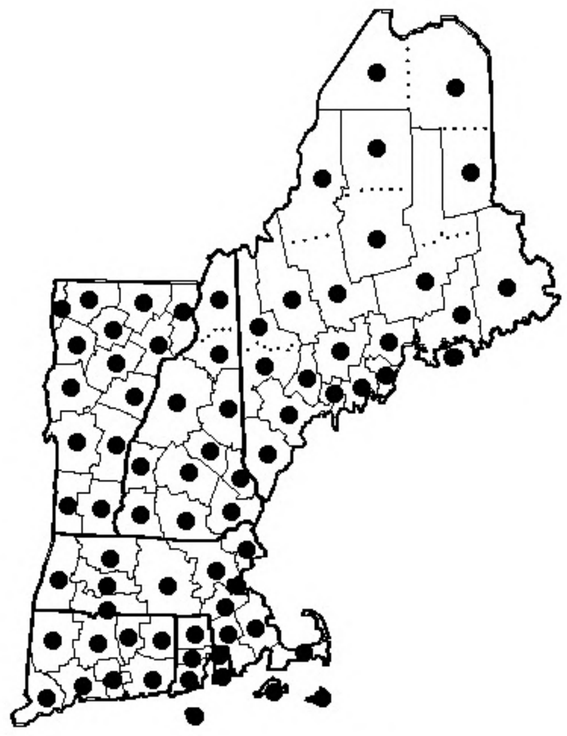
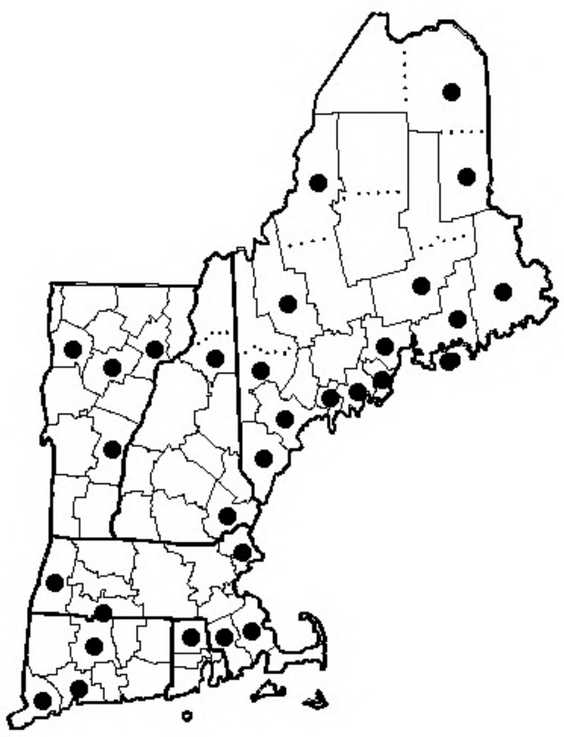
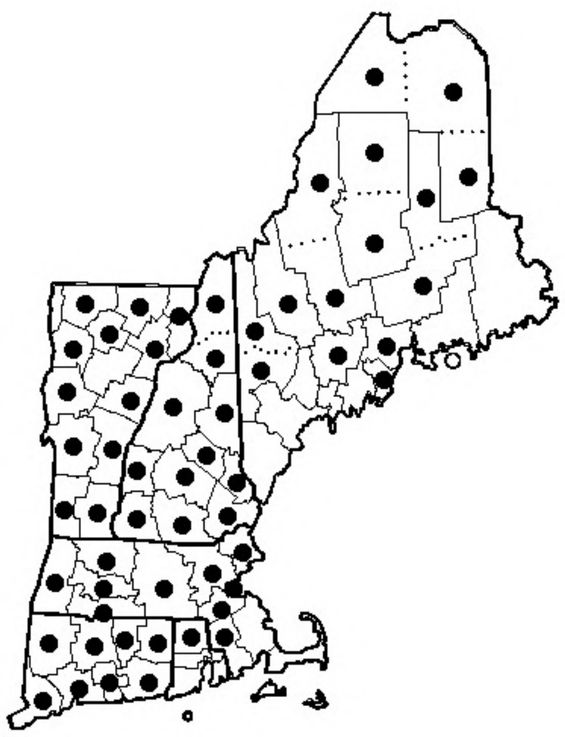


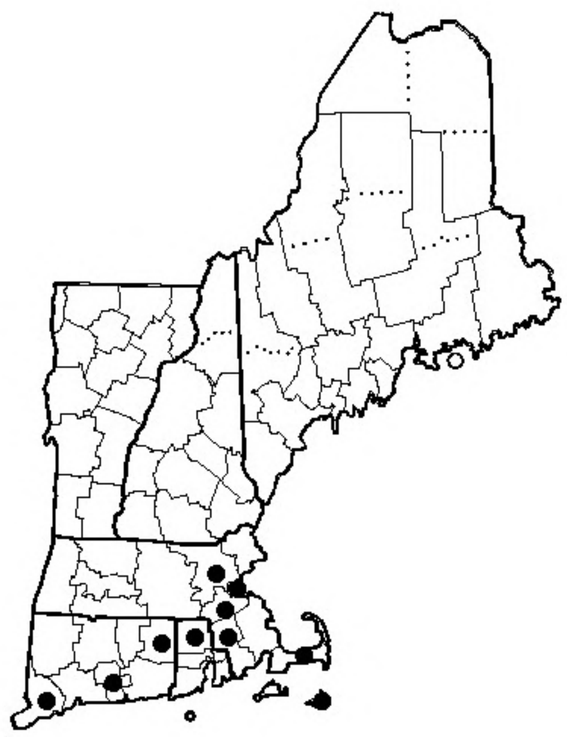
Achillea millefolium



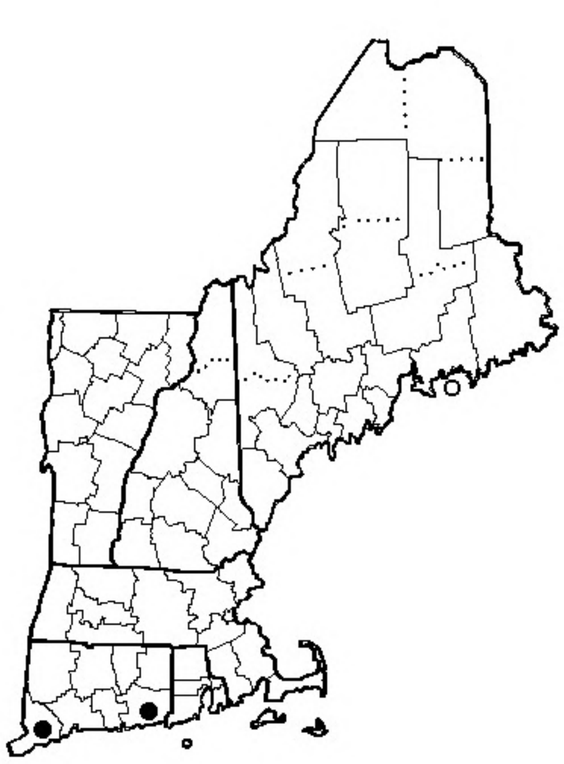
ACHILLEA PTARMICA



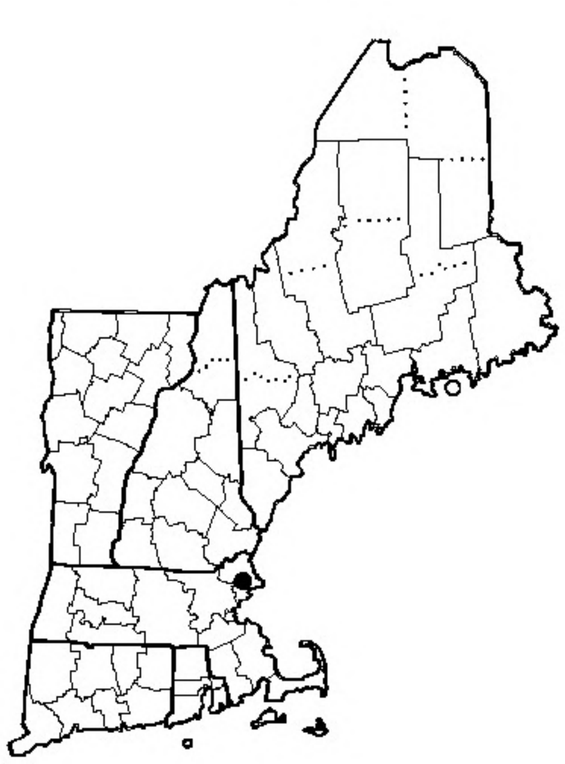
Ageratina altissima
var. *altissima*



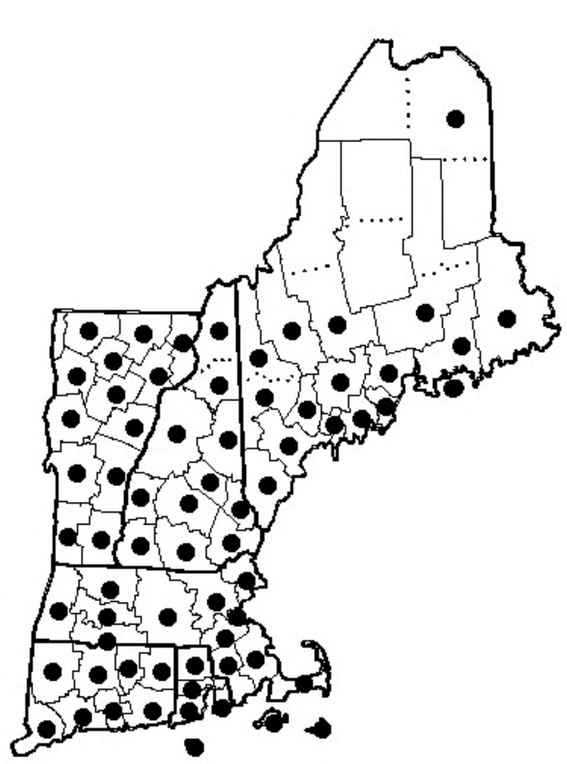
Ageratina aromatica



AGERATUM CONYZOIDES

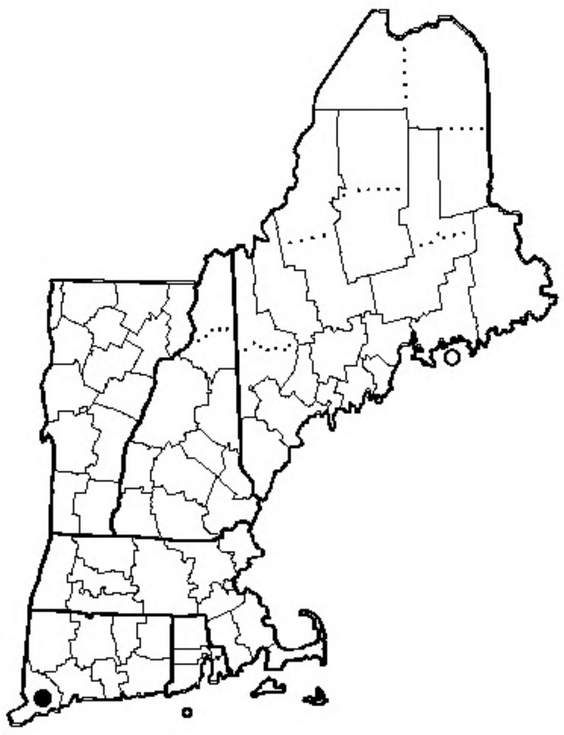


AGERATUM HOUSTONIANUM

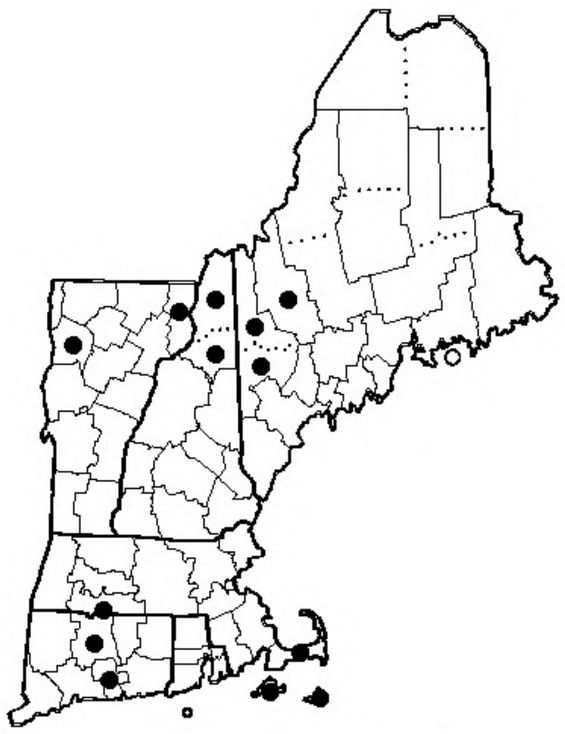


Ambrosia artemisiifolia

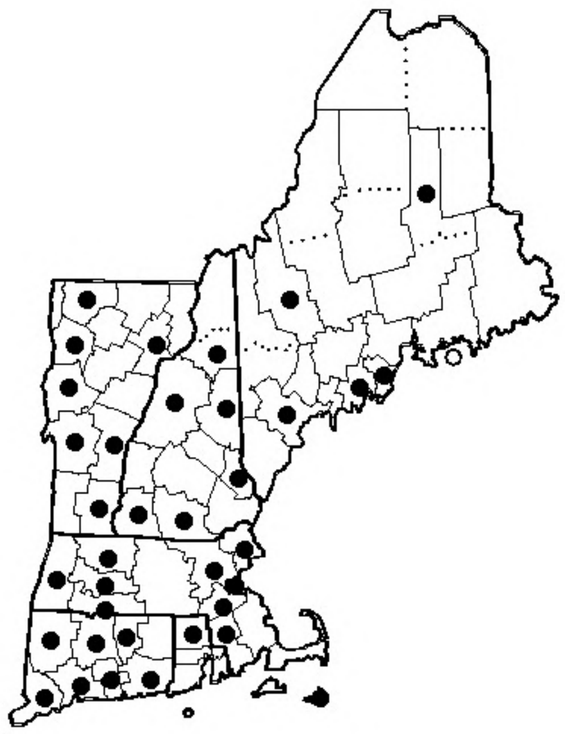
Figure 2. Distribution maps.



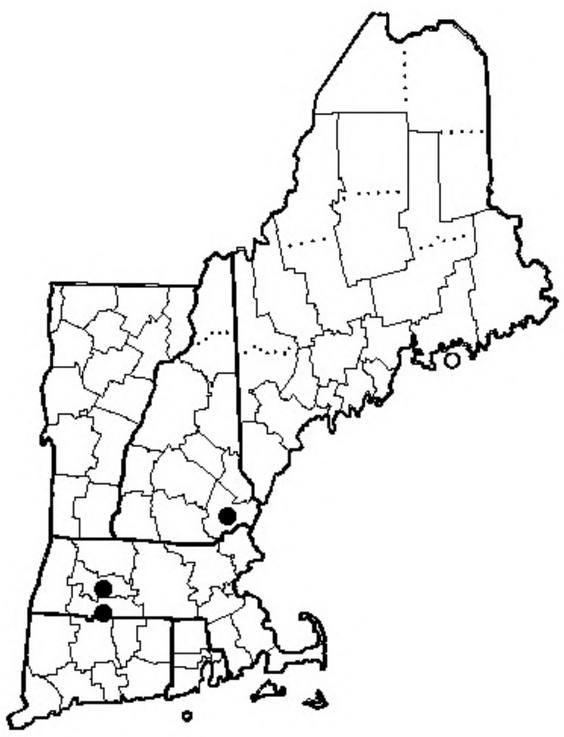
Ambrosia bidentata



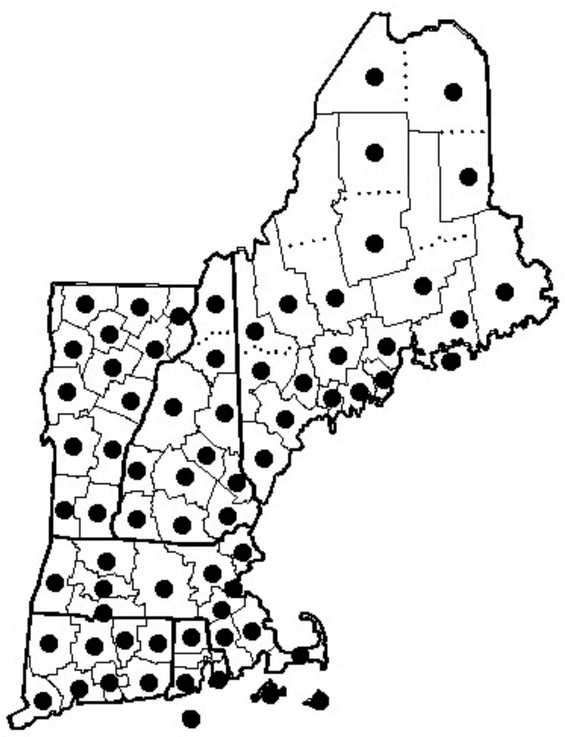
AMBROSIA PSILOSTACHYA



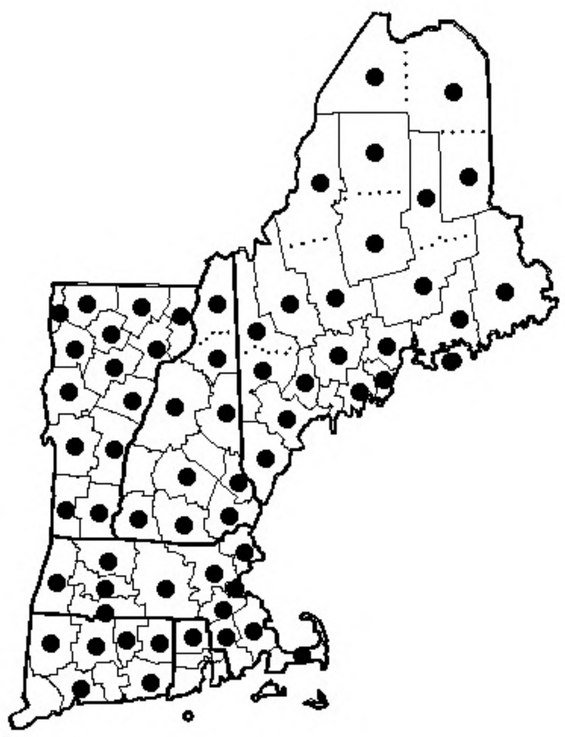
Ambrosia trifida



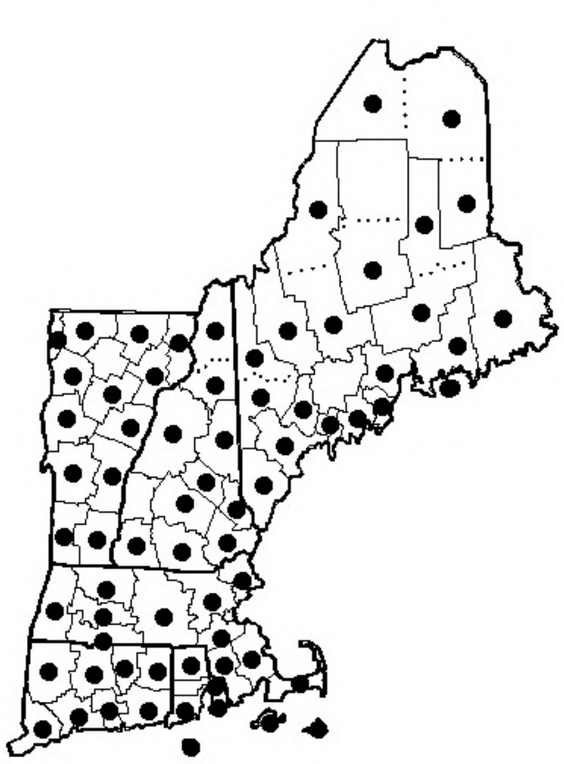
Ambrosia X *helenae*



Anaphalis margaritacea



Antennaria howellii
subsp. *canadensis*



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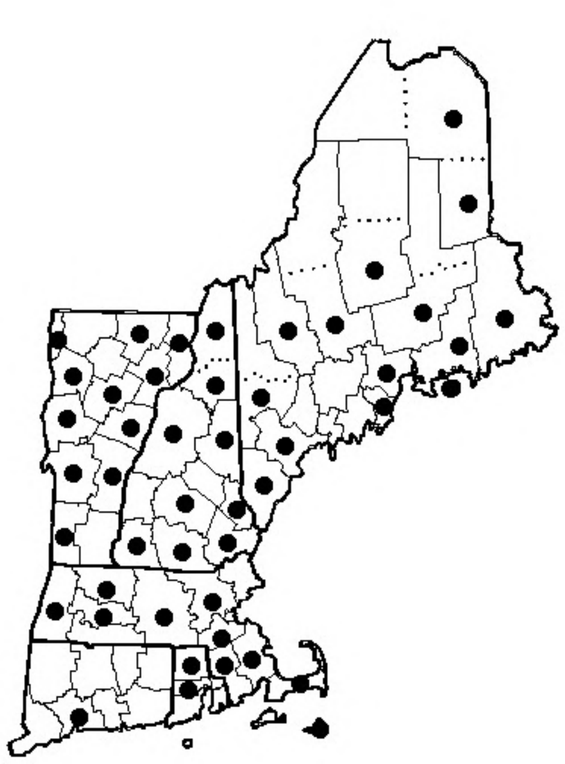

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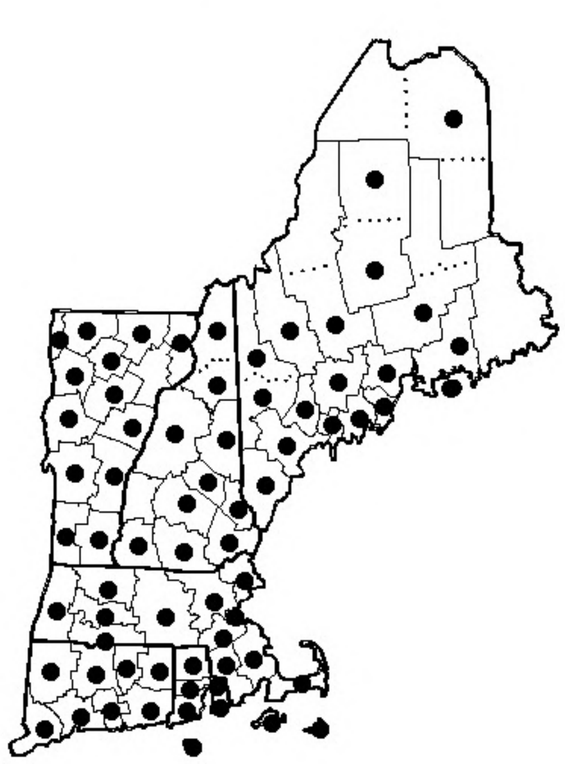
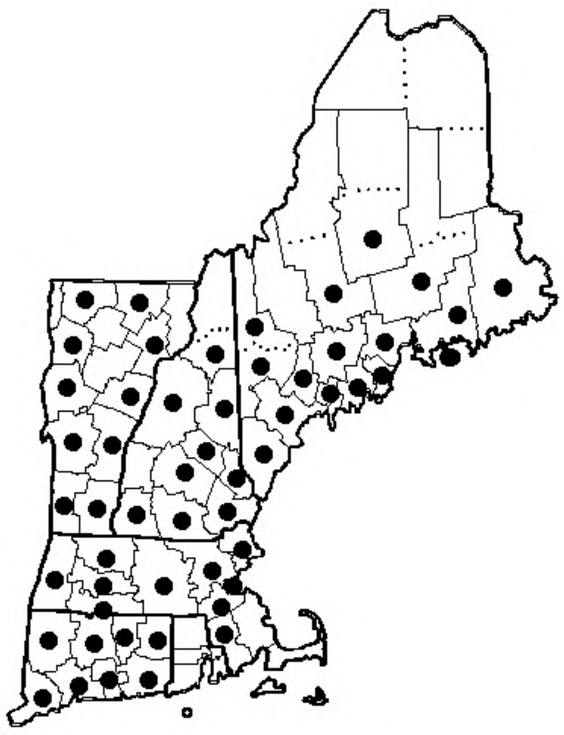
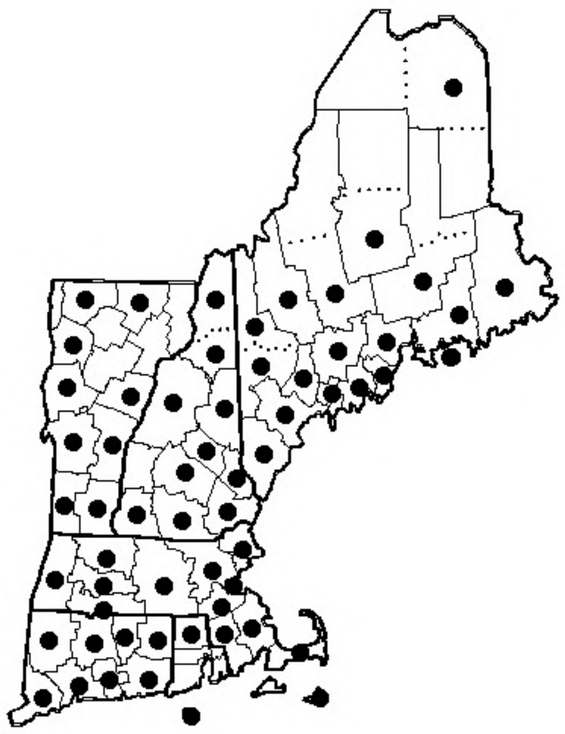


Antennaria neglecta

Figure 3. Distribution maps.



Antennaria parlinii subsp. *parlinii*



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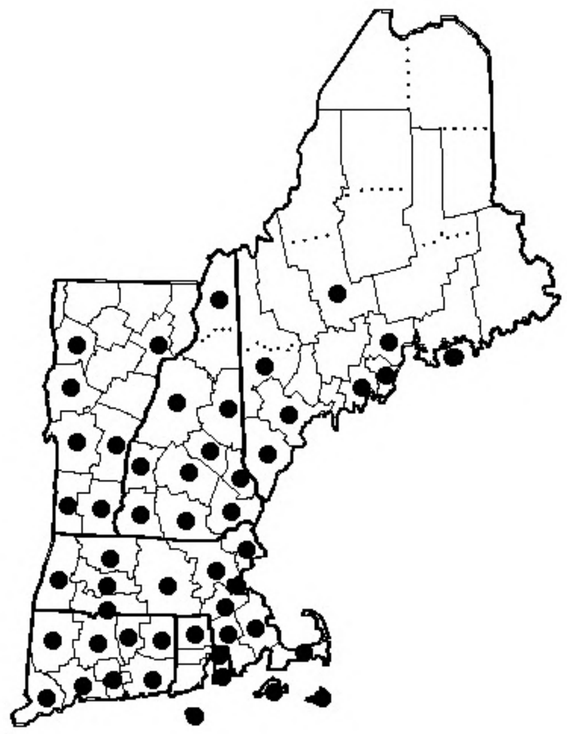
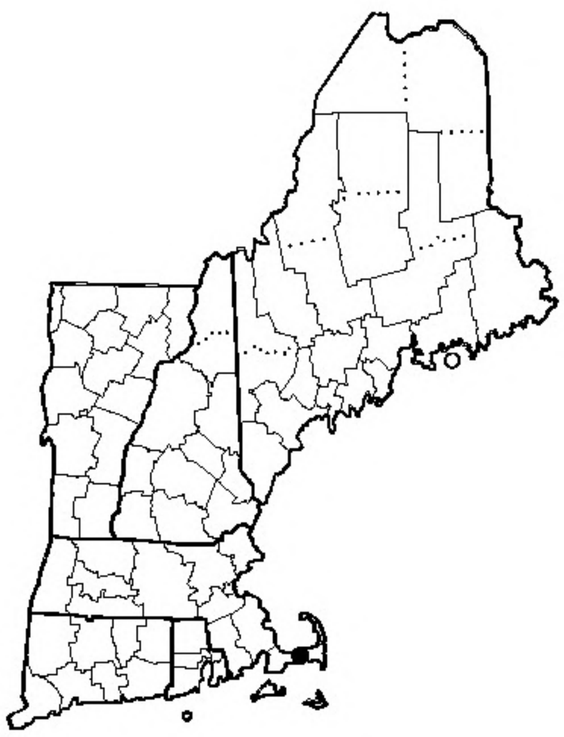
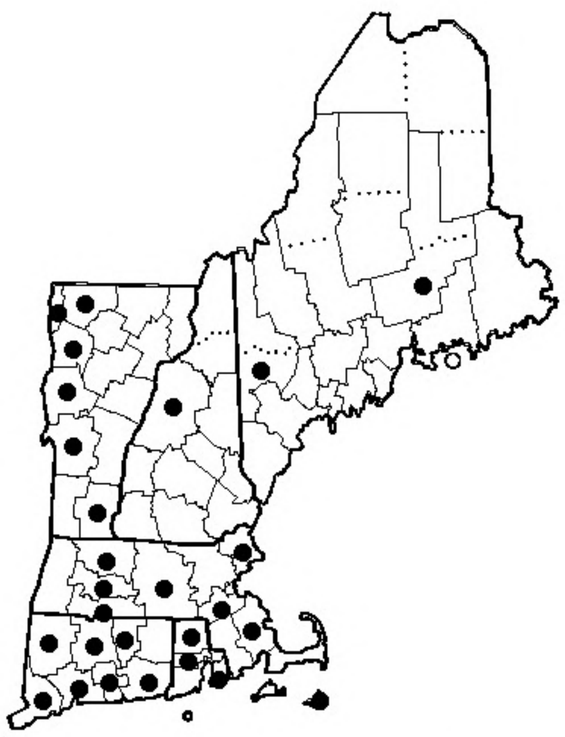


Antennaria plantaginifolia



Antennaria howellii subsp. *petaloidea* X *A. plantaginifolia*



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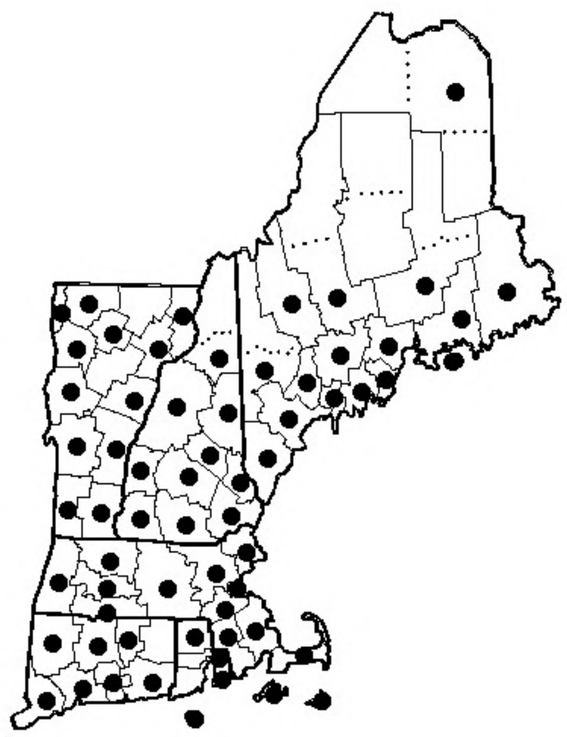

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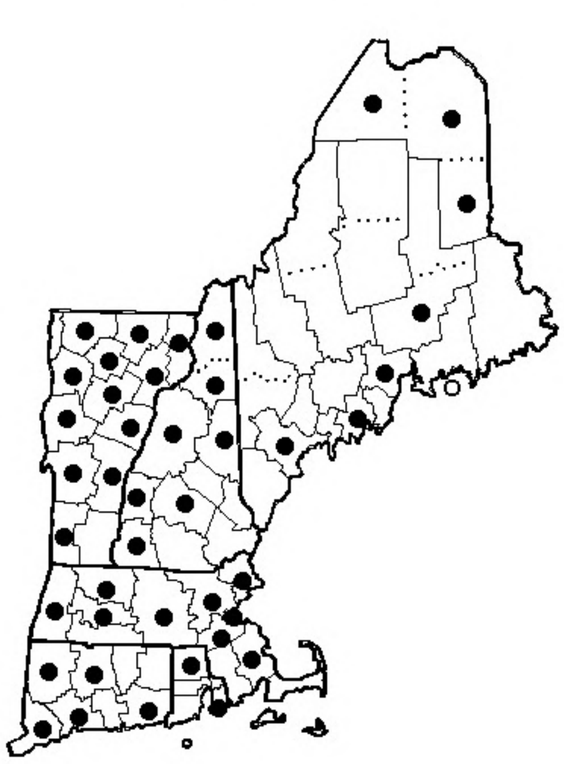

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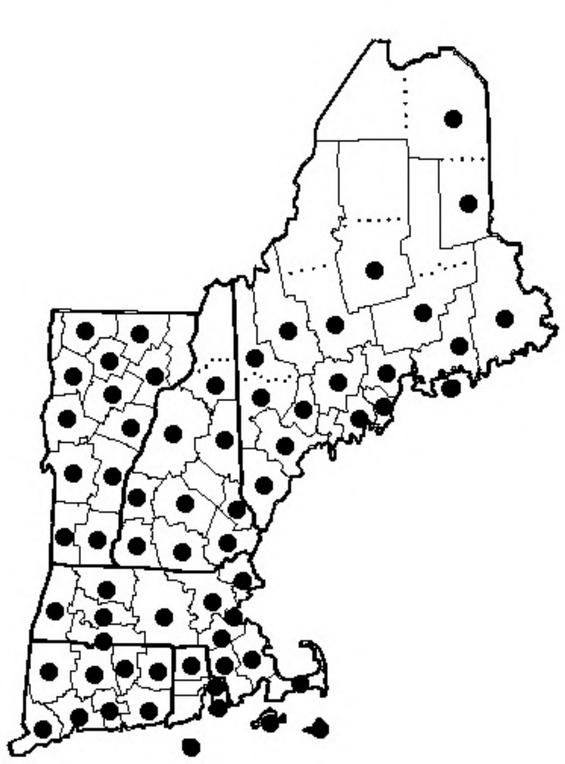

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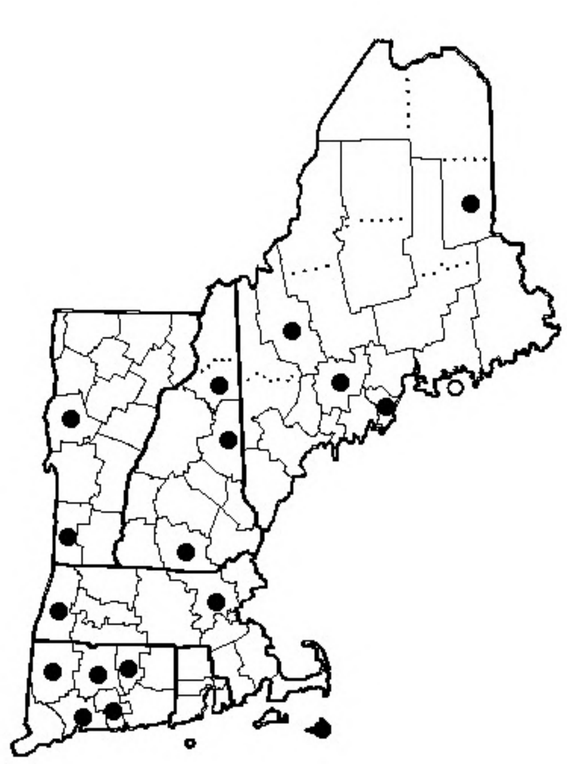
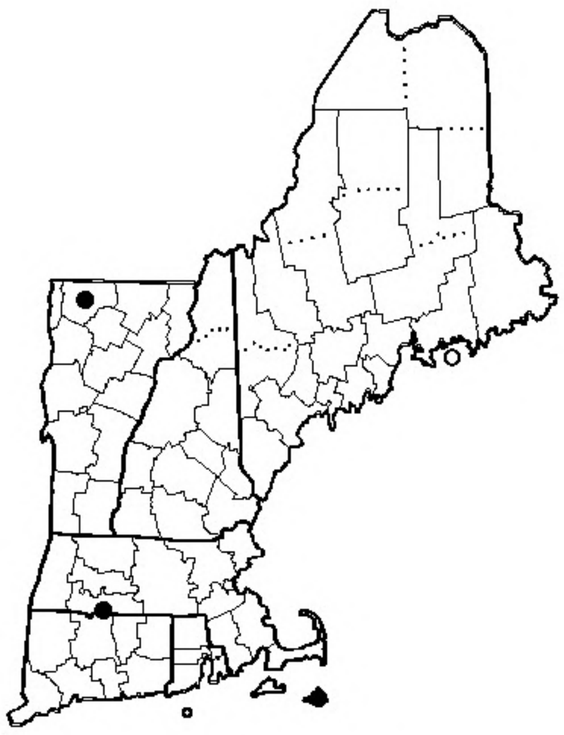
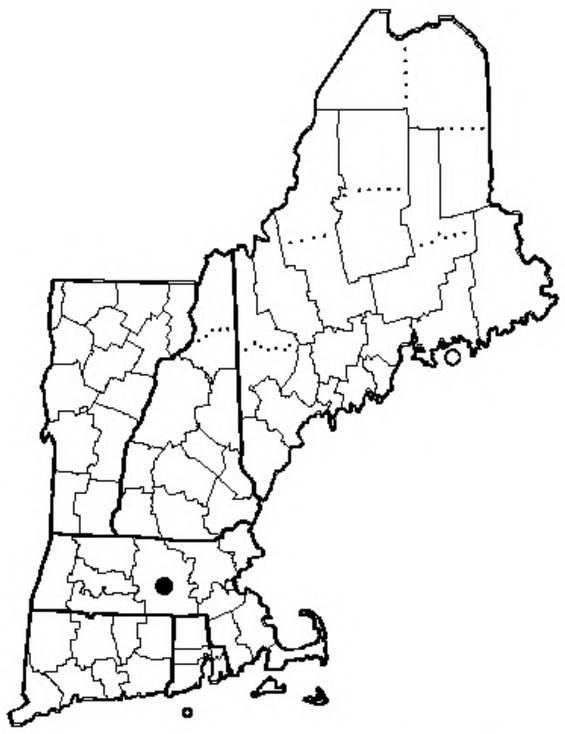


ARCTIUM TOMENTOSUM

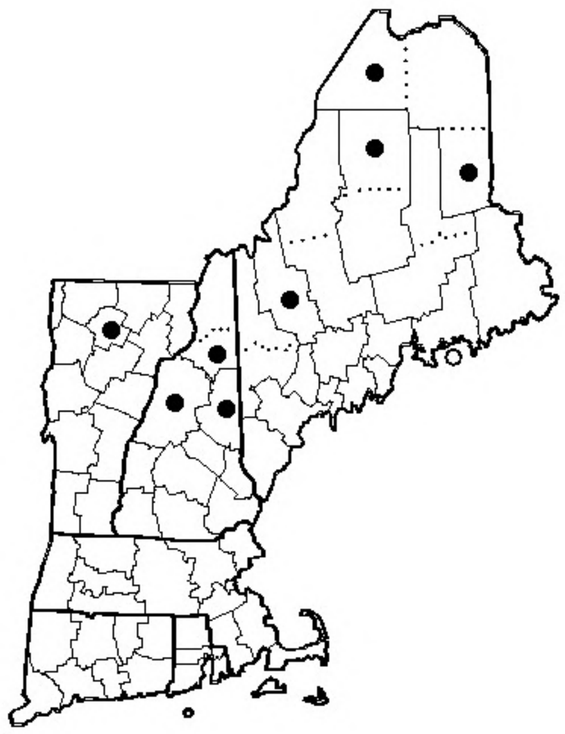
Figure 4. Distribution maps.



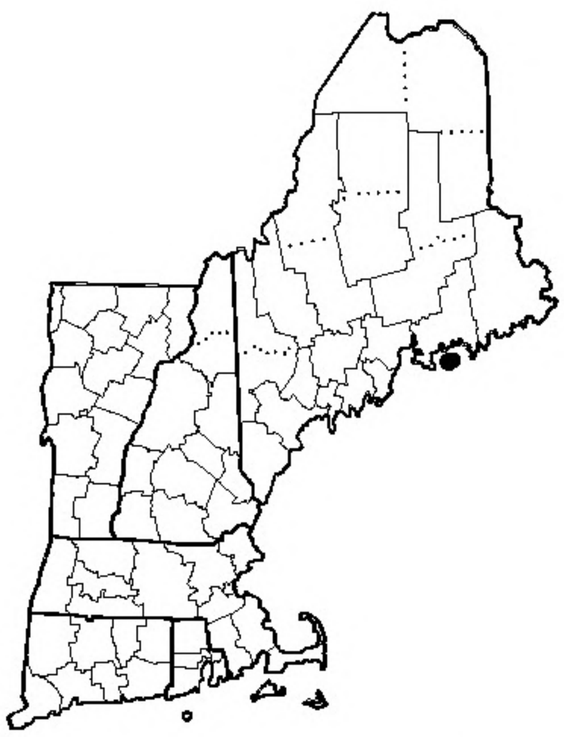
ARCTIUM LAPPA
X *A. TOMENTOSUM*



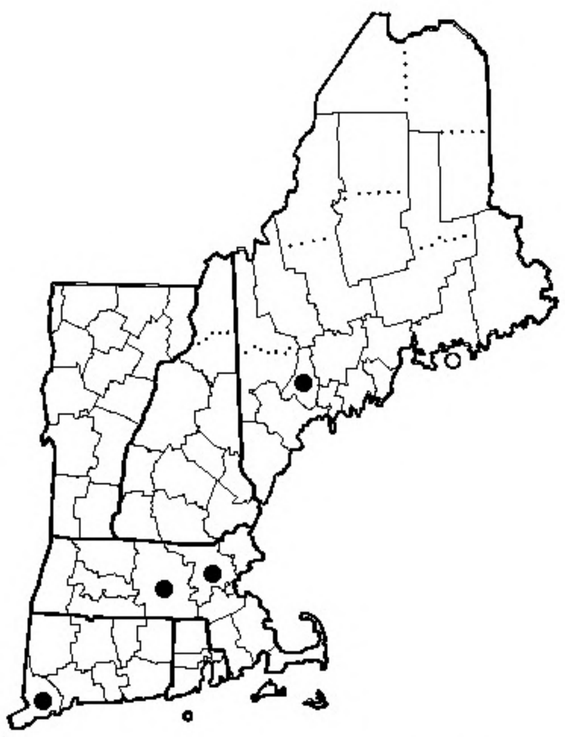
ARCTOTIS STOECHADIFOLIA



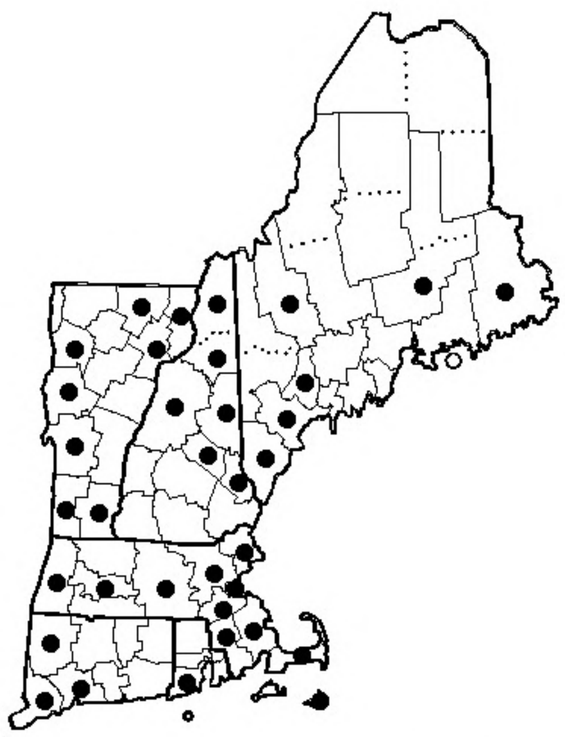
Arnica lanceolata
subsp. *lanceolata*



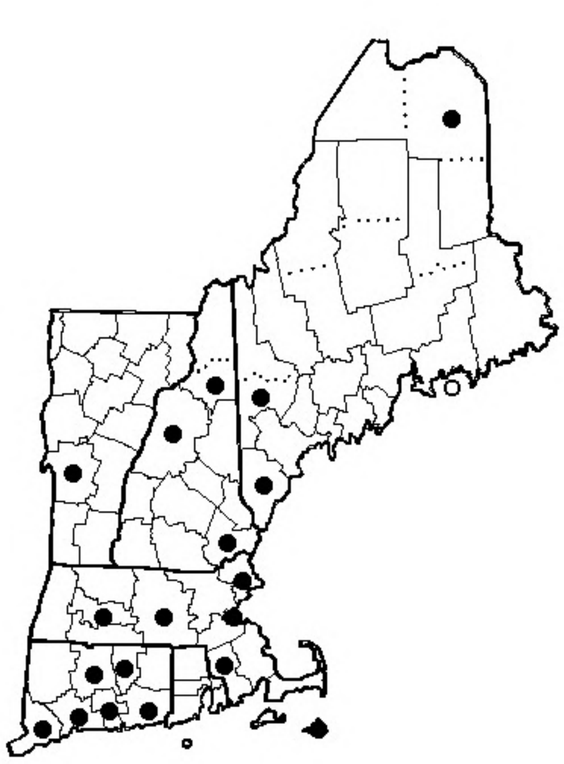
ARNOSERIS MINIMA



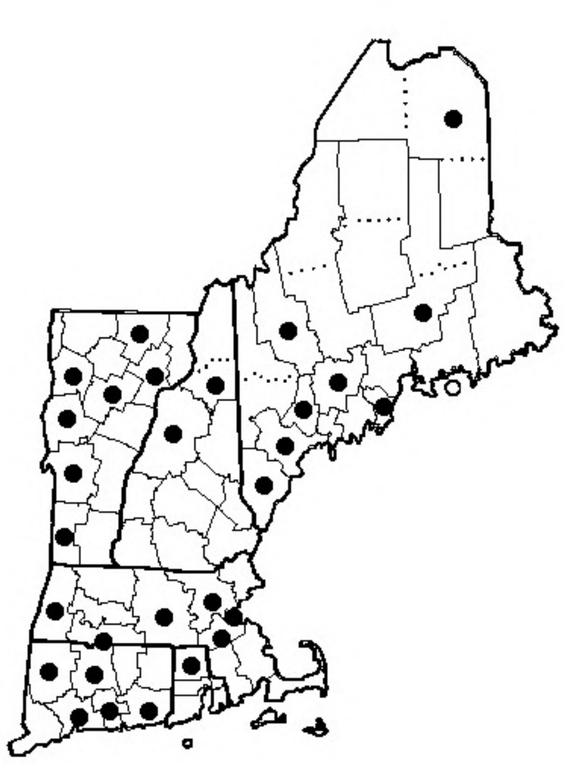
ARTEMISIA ABROTANUM



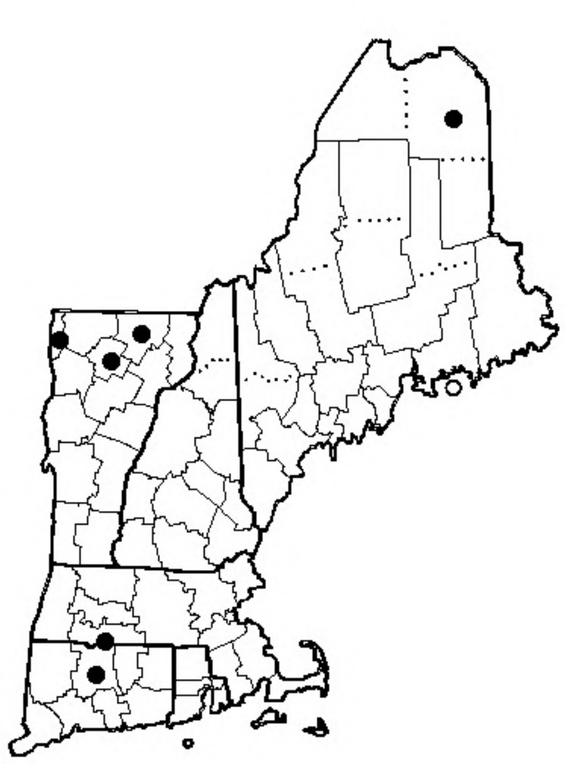
ARTEMISIA ABSINTHIUM



ARTEMISIA ANNUA

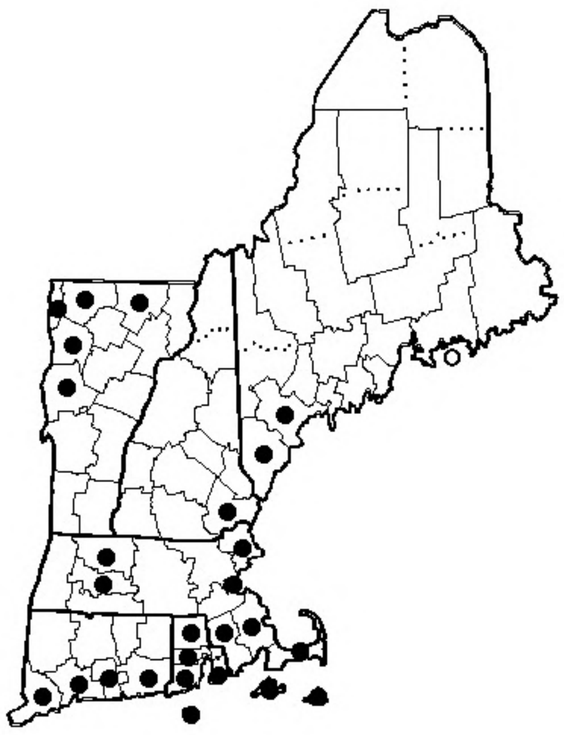


ARTEMISIA BIENNIS

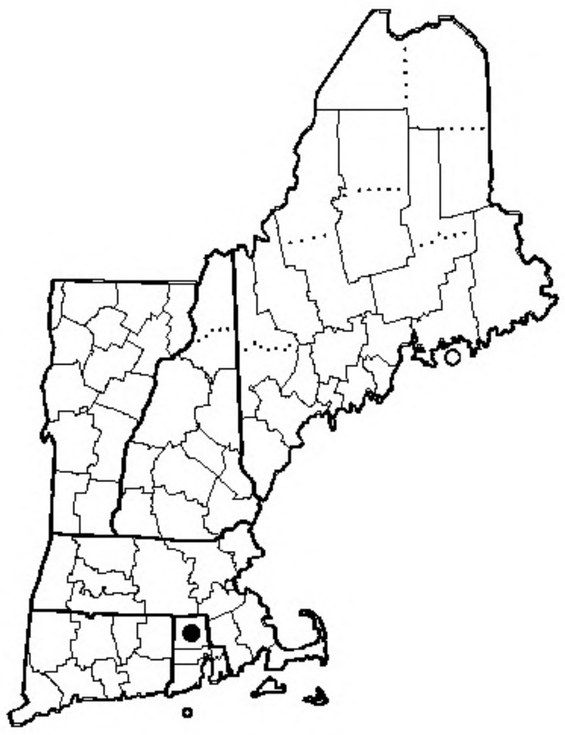


Artemisia campestris
subsp. *canadensis*

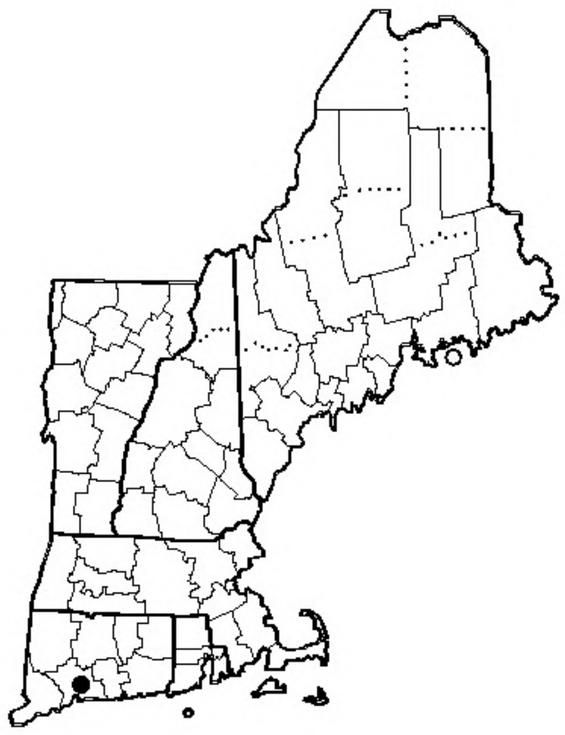
Figure 5. Distribution maps.



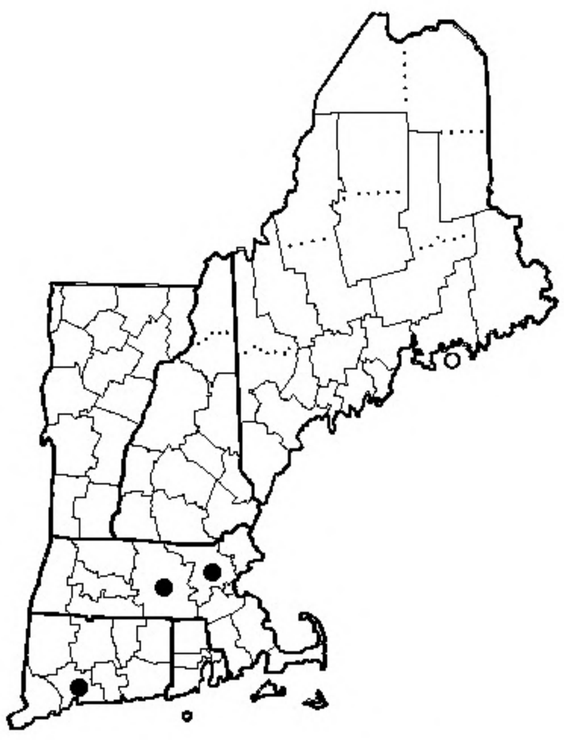
Artemisia campestris
subsp. *caudata*



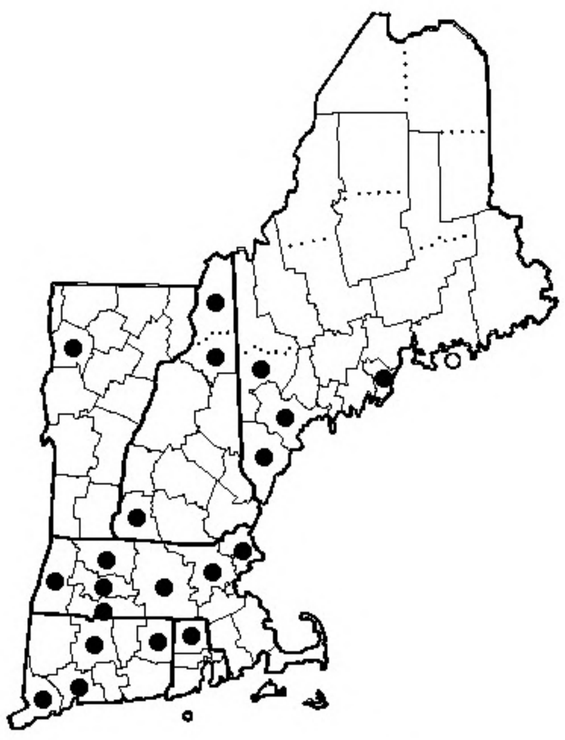
ARTEMISIA CARRUTHII



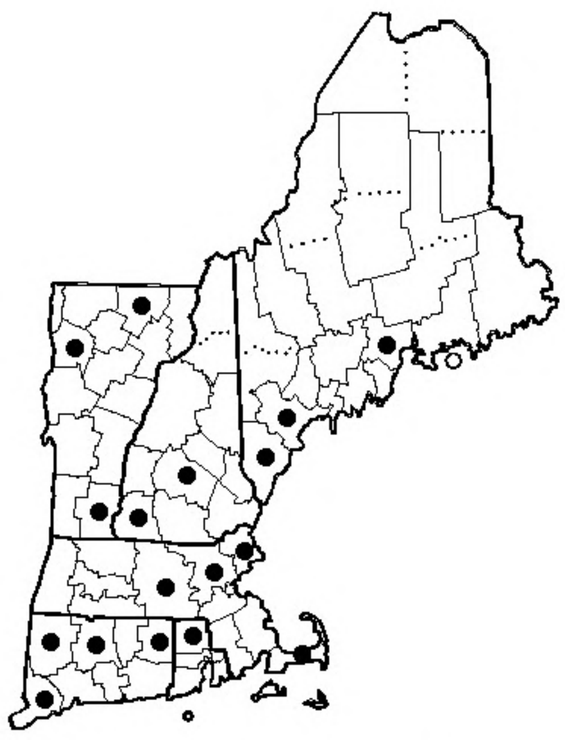
ARTEMISIA FILIFOLIA



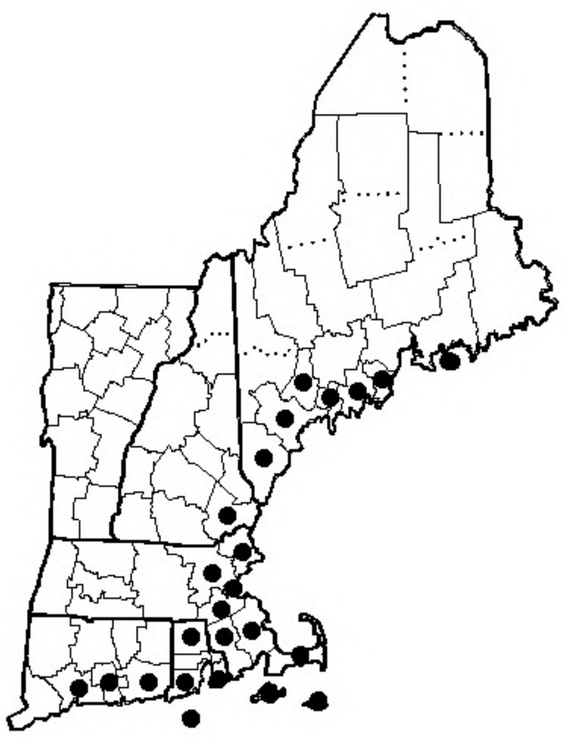
ARTEMISIA FRIGIDA



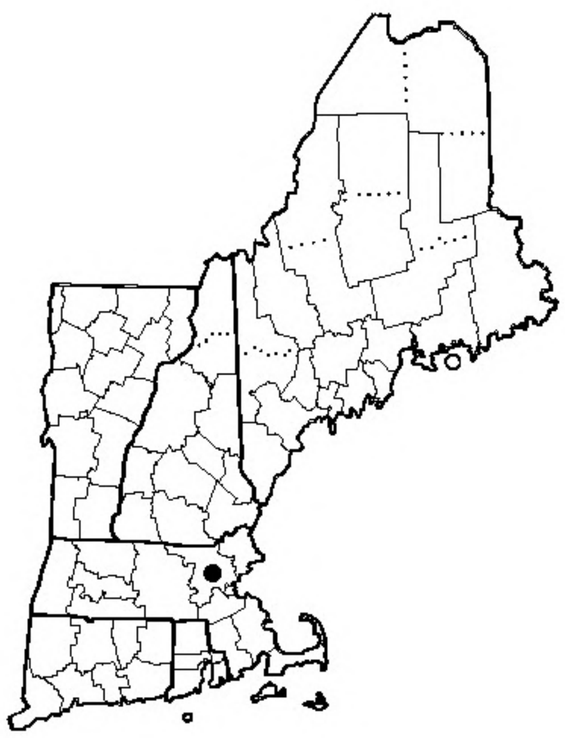
ARTEMISIA LUDOVICIANA
subsp. *LUDOVICIANA*



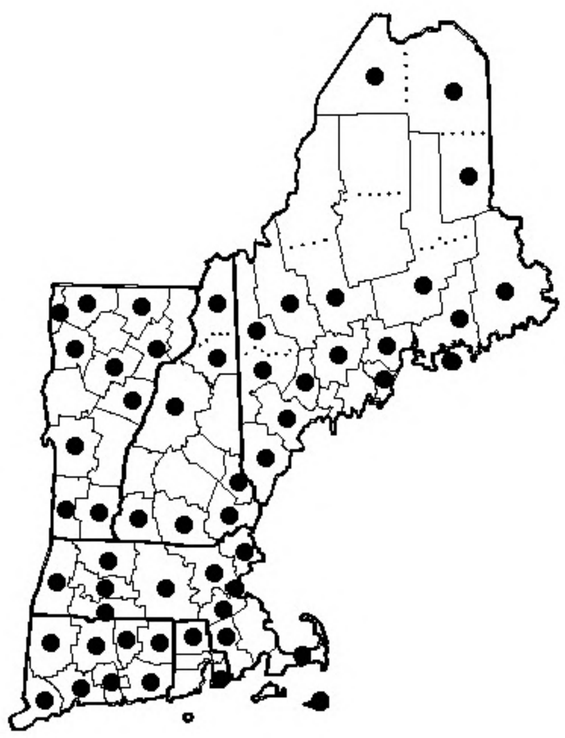
ARTEMISIA PONTICA



ARTEMISIA STELLERIANA

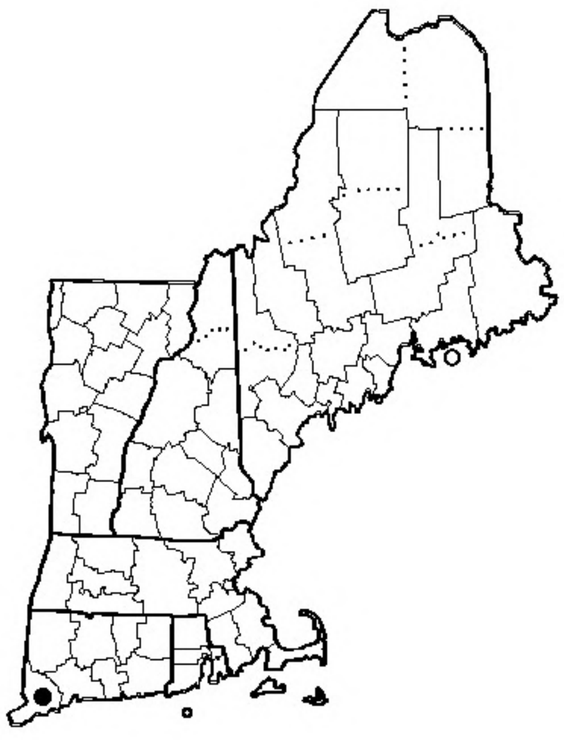


ARTEMISIA TRIDENTATA
subsp. *TRIDENTATA*

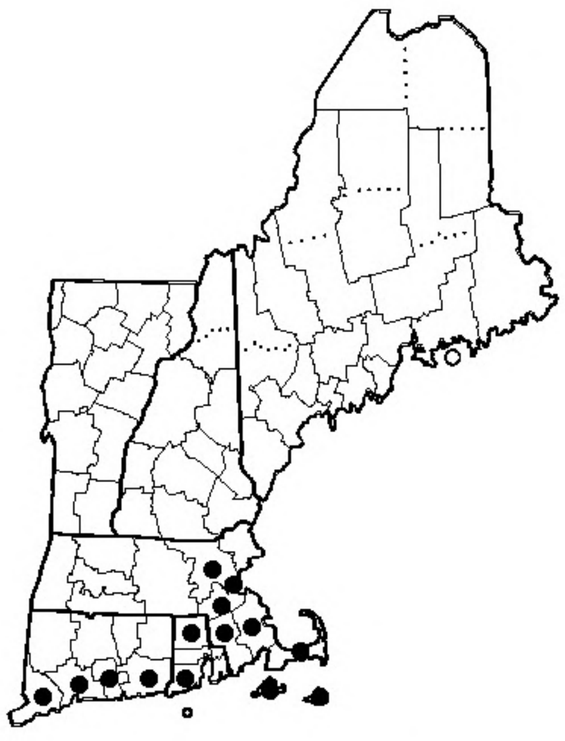


ARTEMISIA VULGARIS

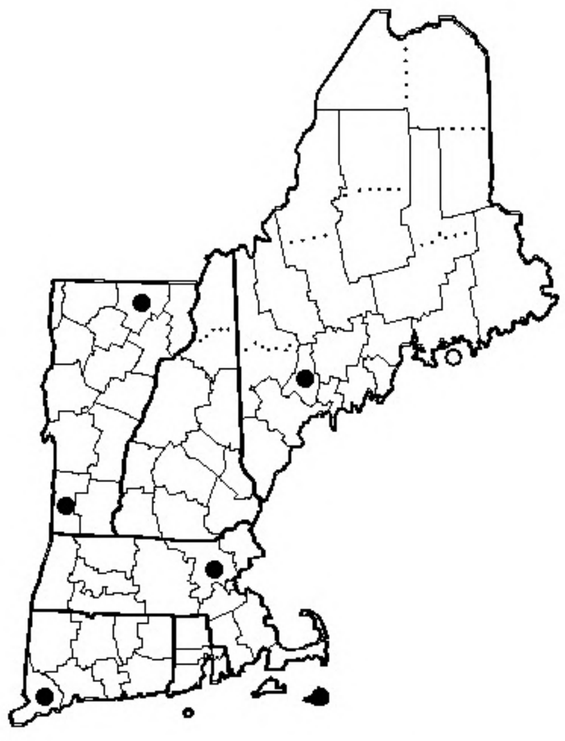
Figure 6. Distribution maps.



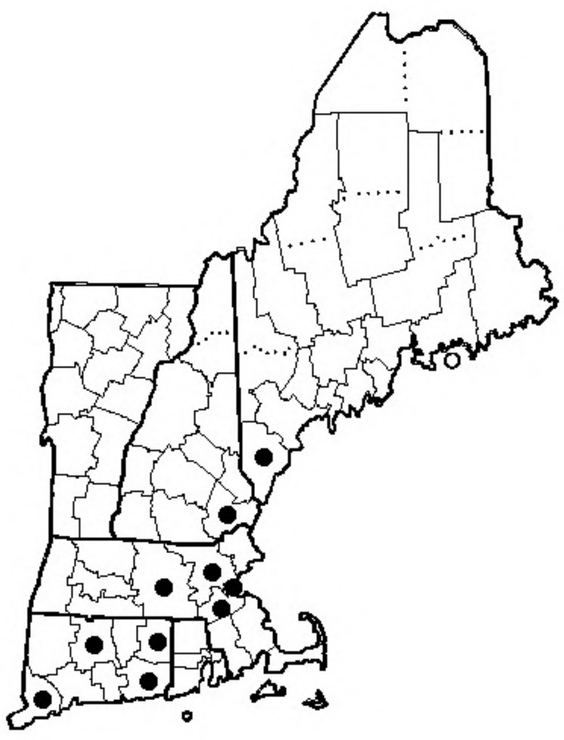
ASTER TATARICUS



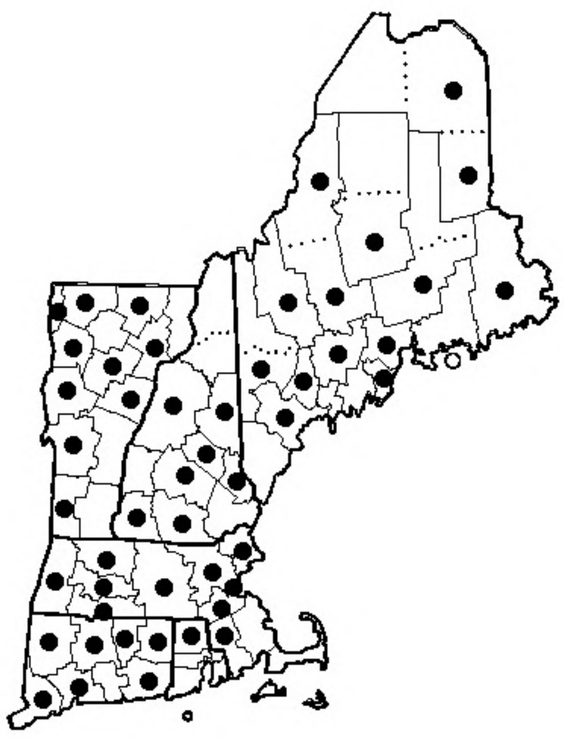
Baccharis halimifolia



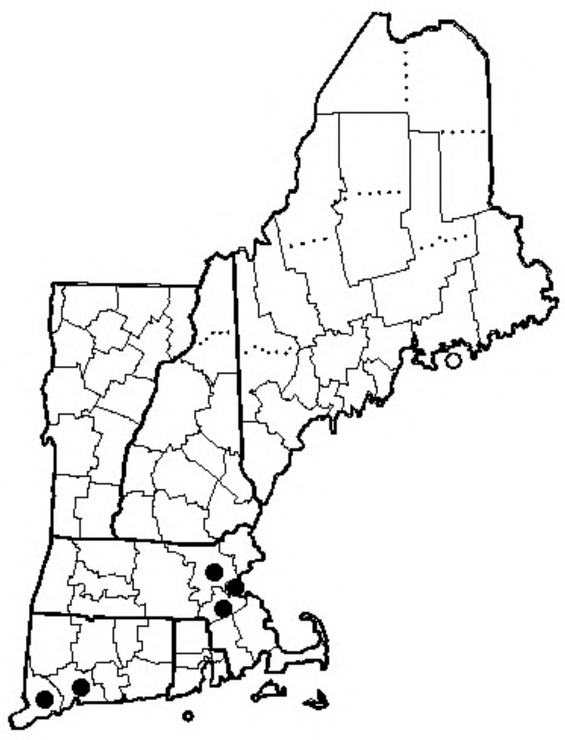
BELLIS PERENNIS



BIDENS ARISTOSA



Bidens beckii



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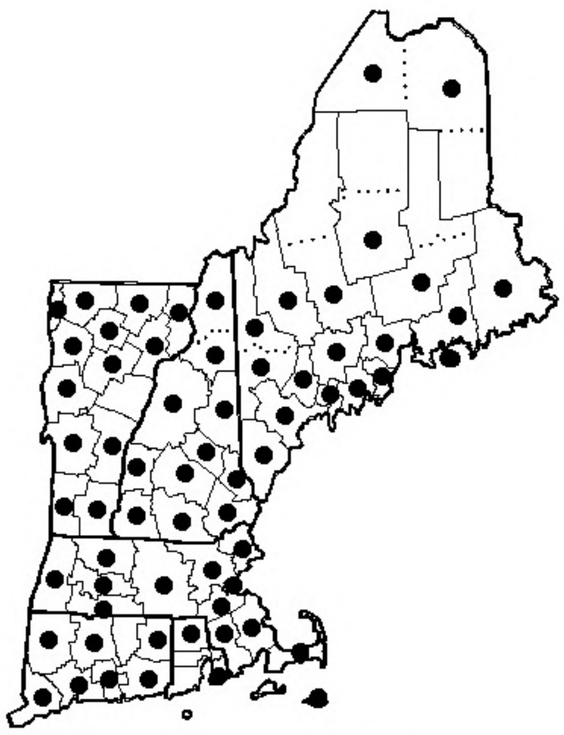
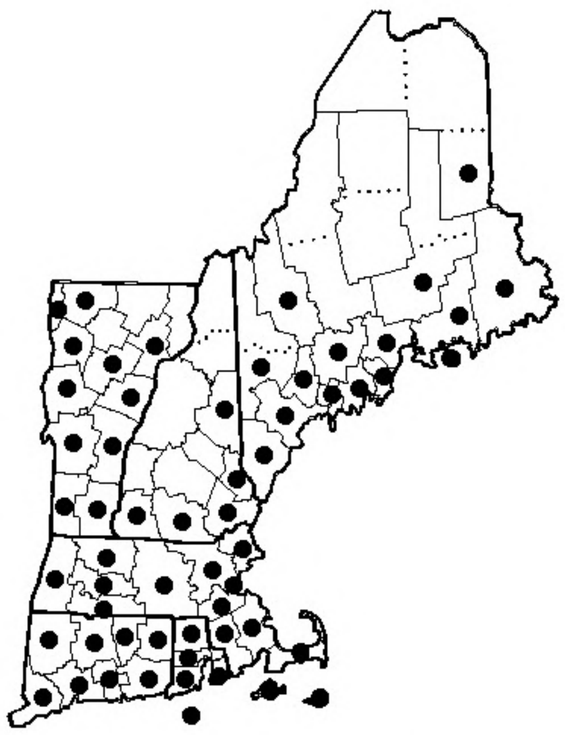
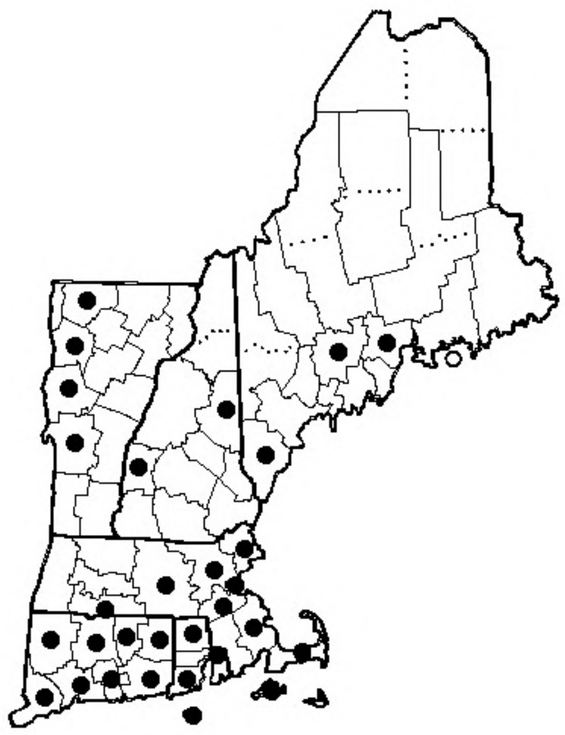


Bidens cernua

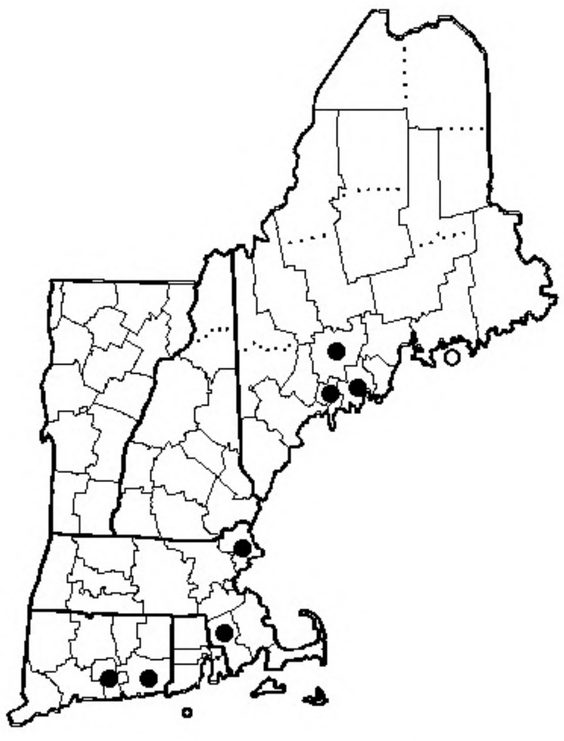


Bidens connata

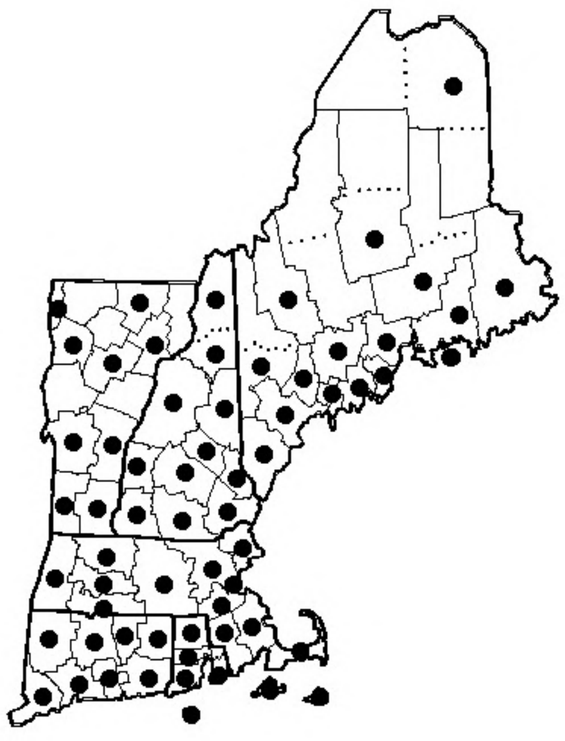


Bidens discoidea

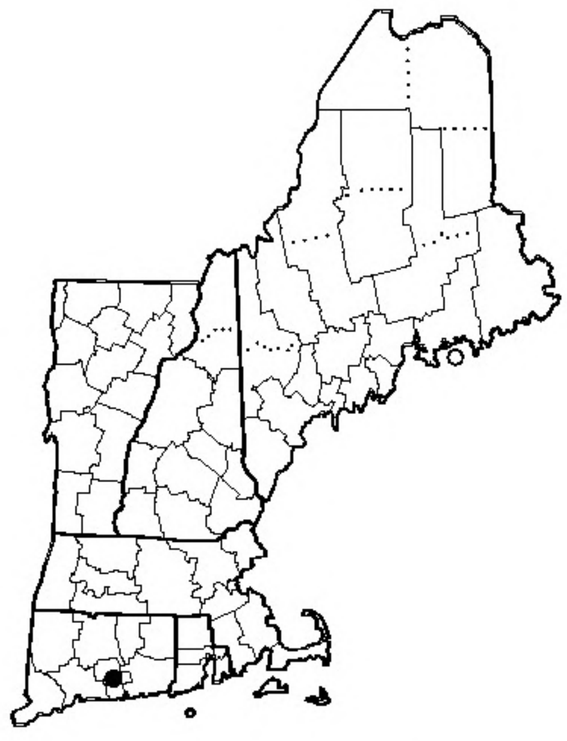
Figure 7. Distribution maps.



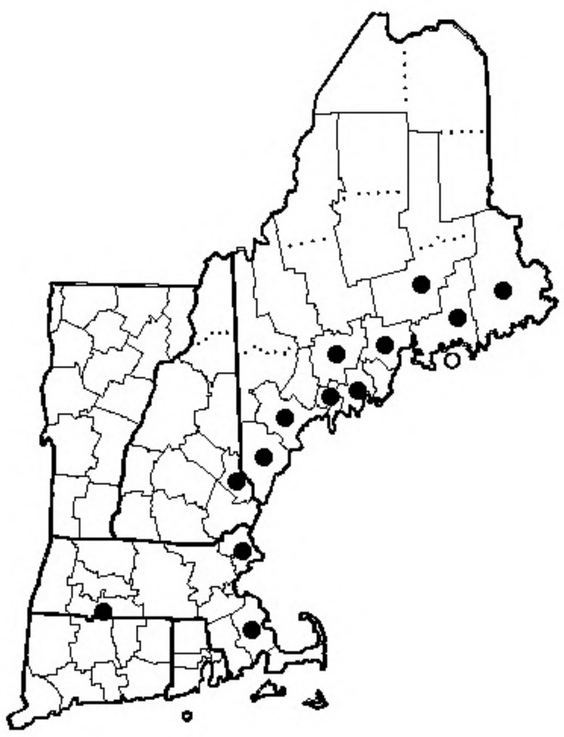
Bidens eatonii



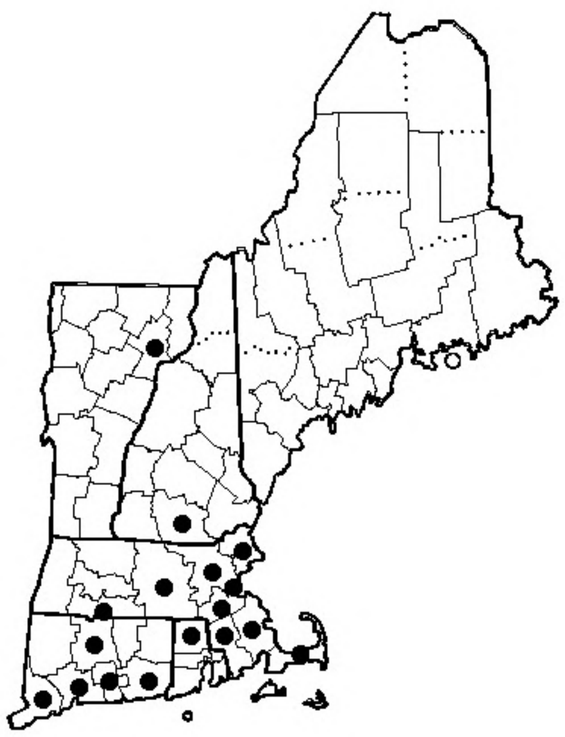
Bidens frondosa



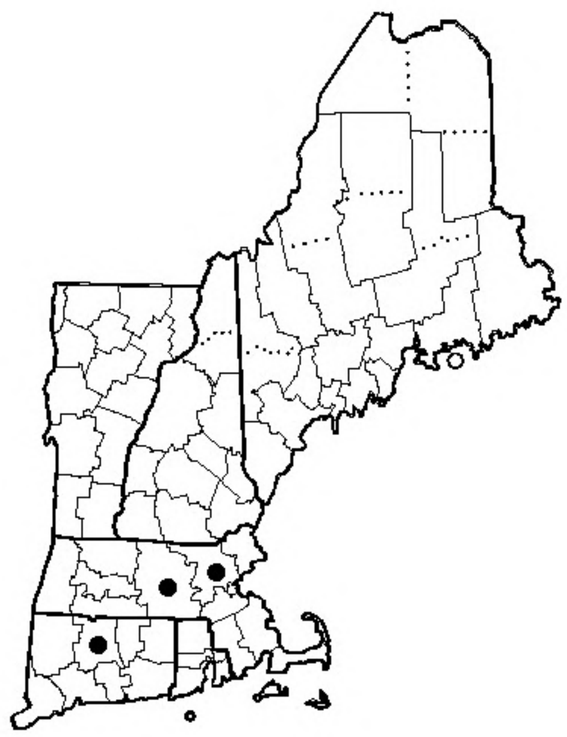
Bidens heterodoxa



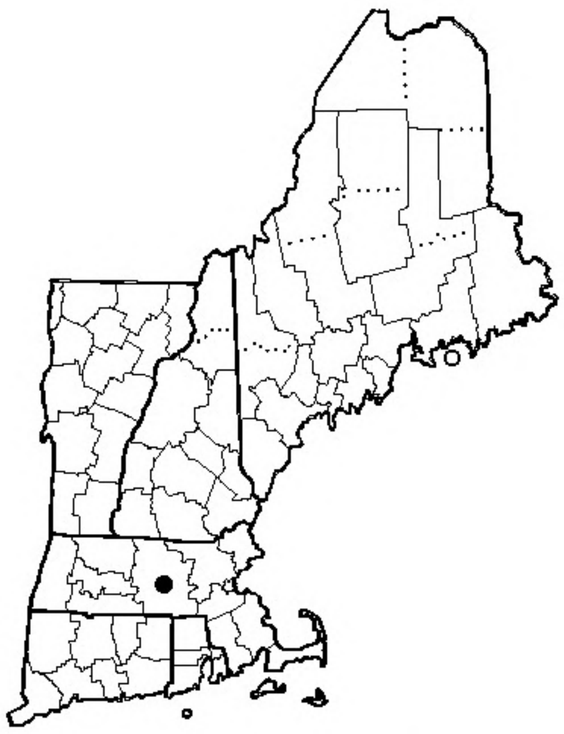
Bidens hyperborea



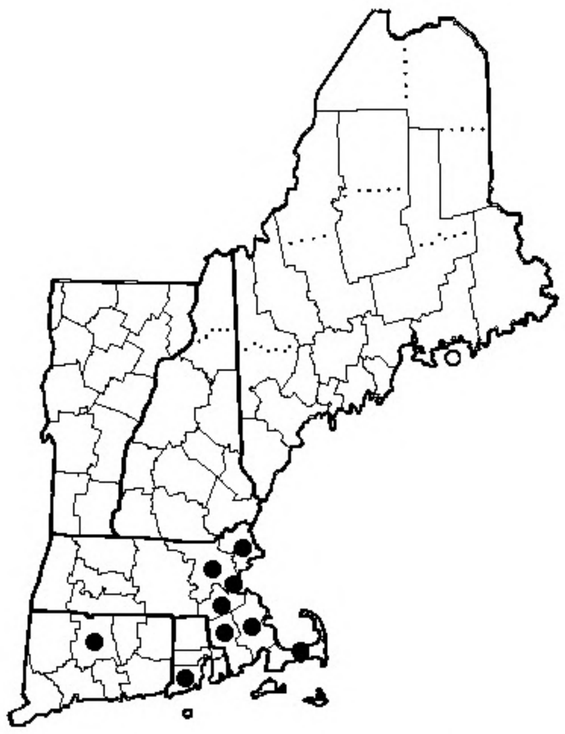
Bidens laevis



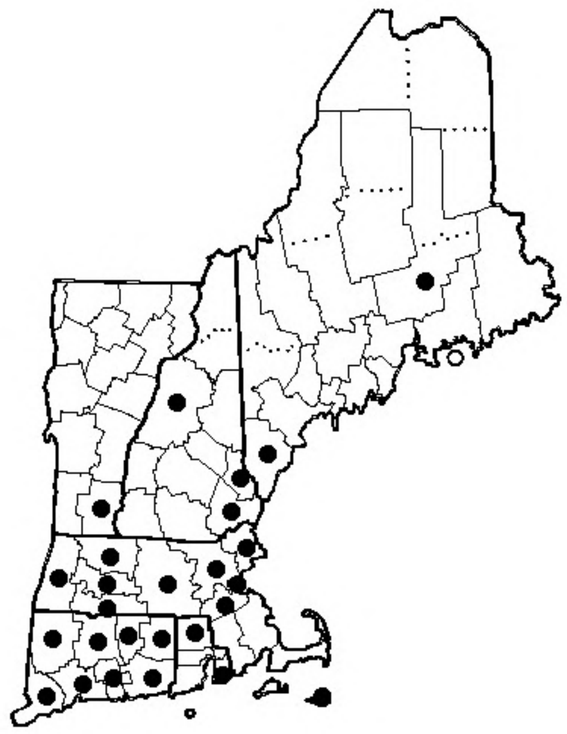
BIDENS PILOSA



BIDENS TENUISECTA

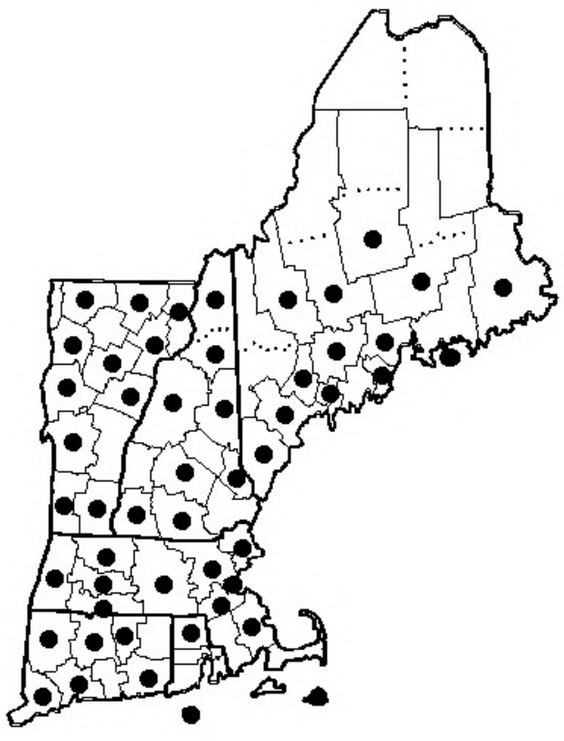


Bidens trichosperma

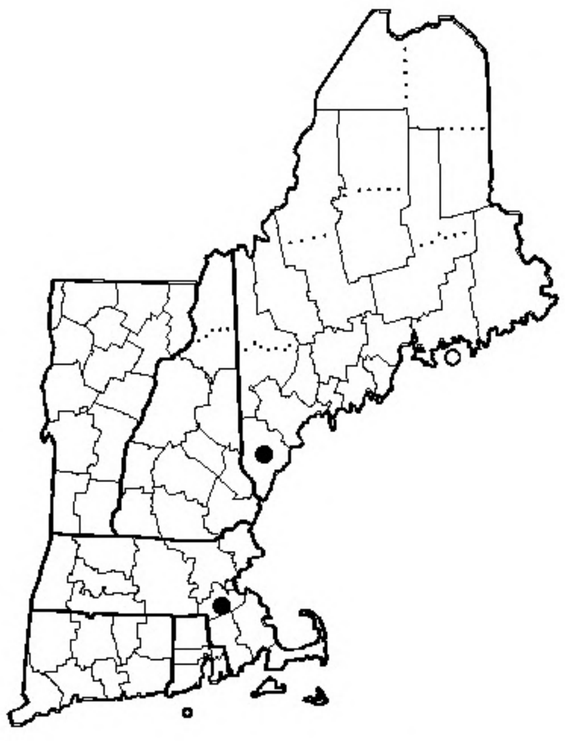


Bidens tripartita

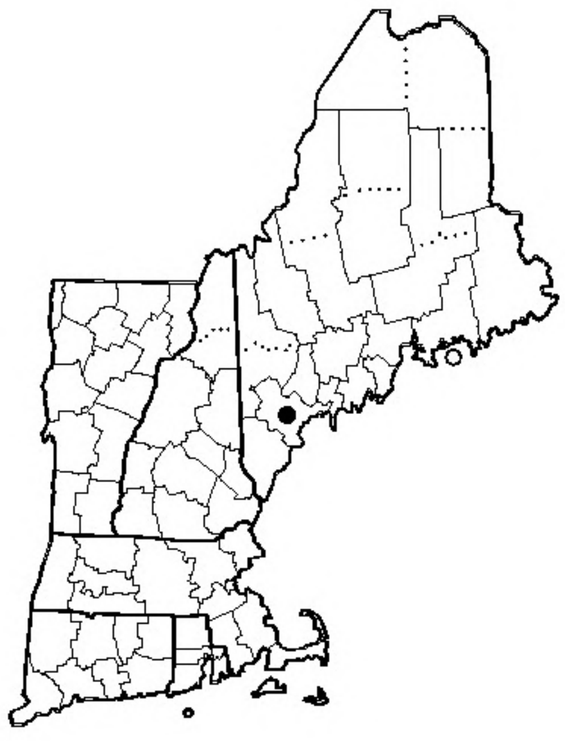
Figure 8. Distribution maps.



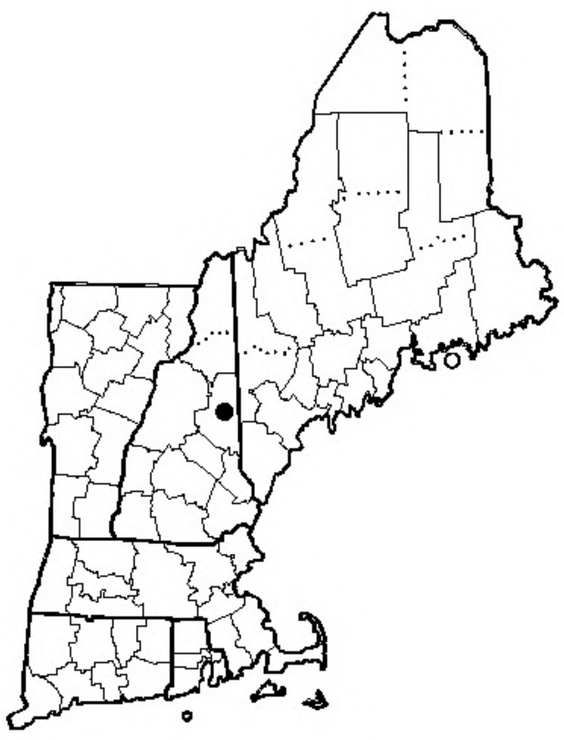
Bidens vulgata



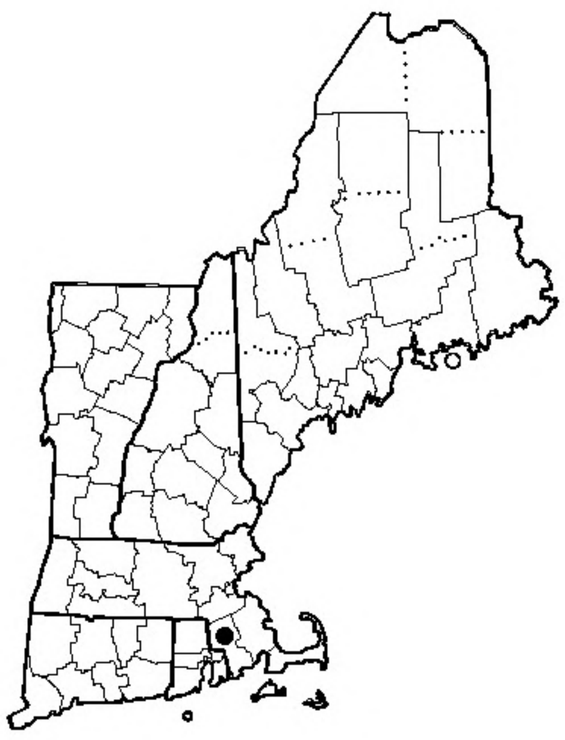
Bidens cernua
X *B. connata*



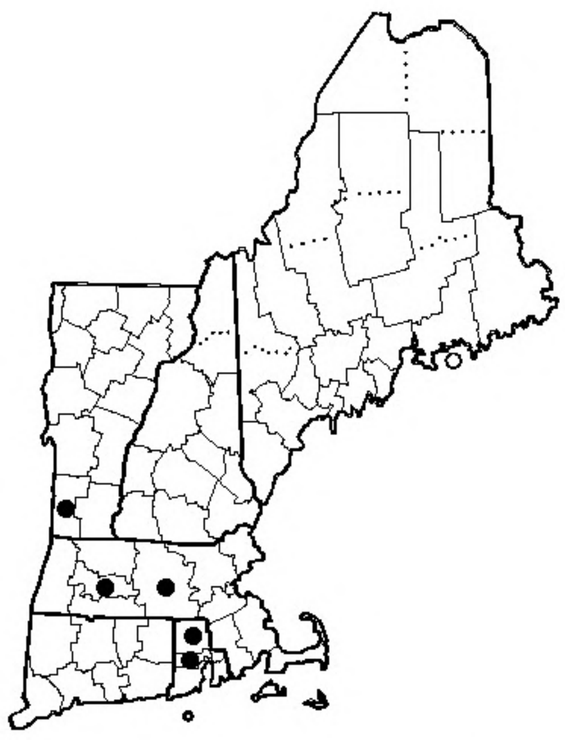
Bidens cernua
X *B. hyberborea*



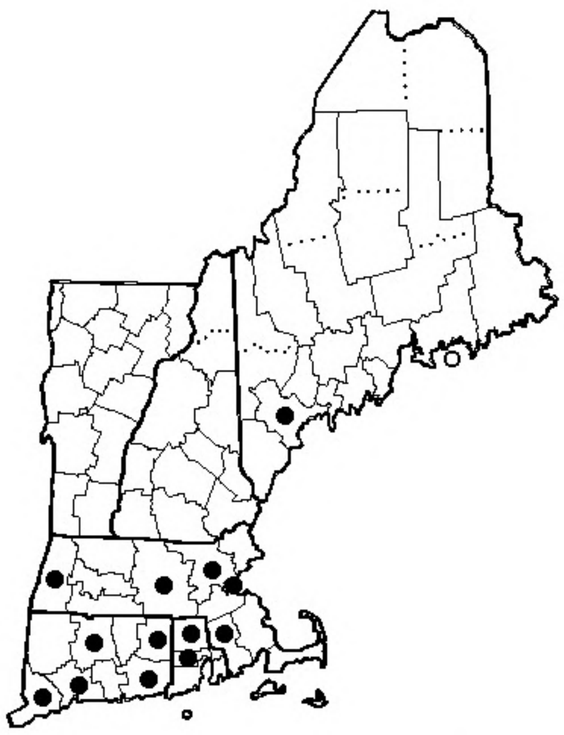
Bidens connata
X *B. tripartita*



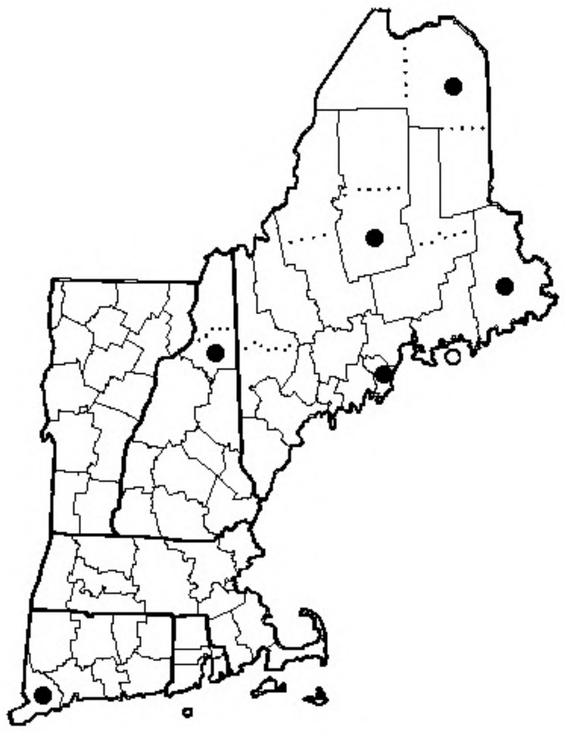
Bidens X *multiceps*



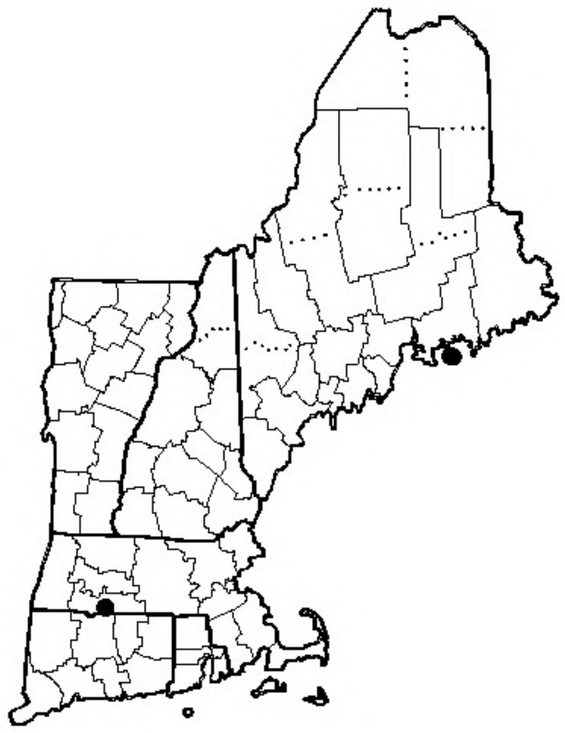
BOLTONIA ASTEROIDES
var. *LATISQUAMA*



BOLTONIA ASTEROIDES
var. *RECOGNITA*

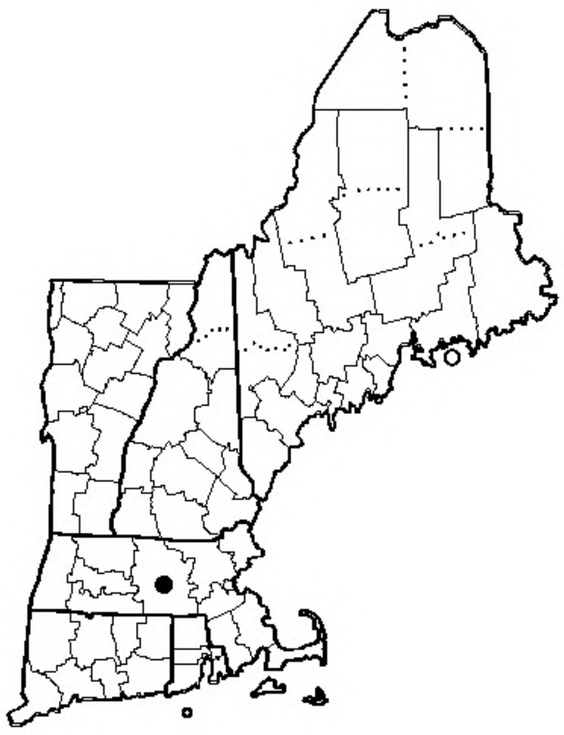


CALENDULA OFFICINALIS

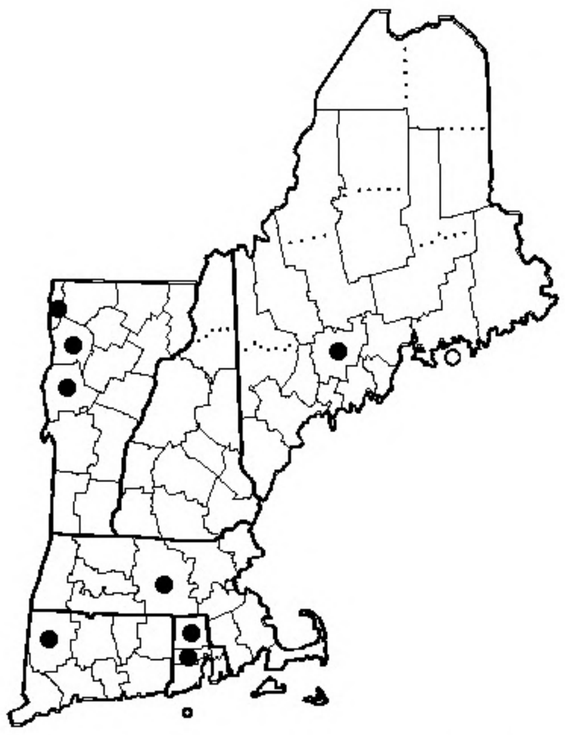


CALLISTEPHUS CHINENSIS

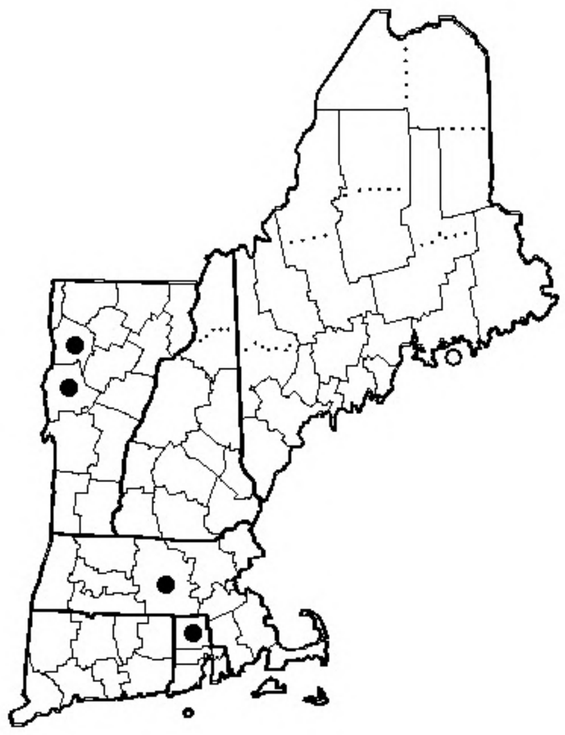
Figure 9. Distribution maps.



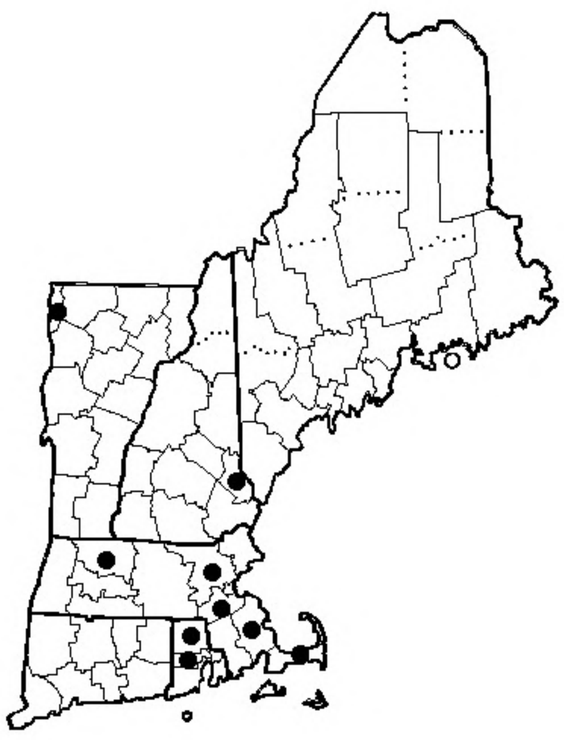
CALOTIS CUNEIFOLIA



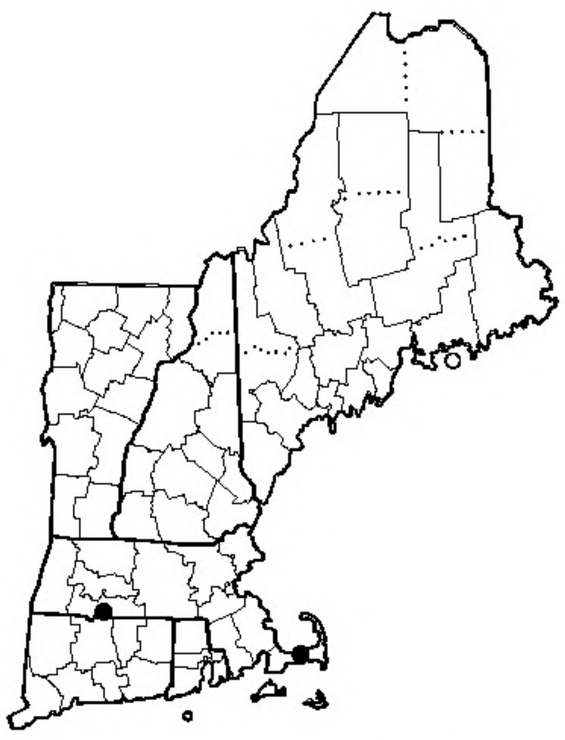
CARDUUS ACANTHOIDES
subsp. *ACANTHOIDES*



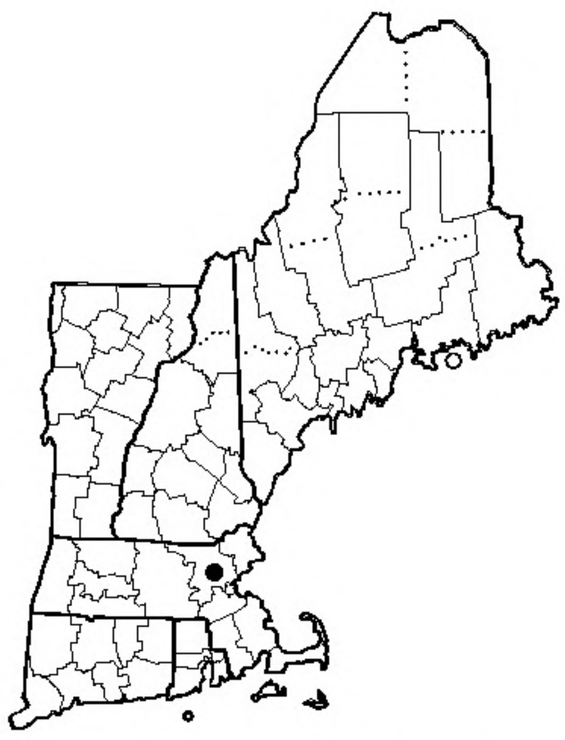
CARDUUS CRISPUS



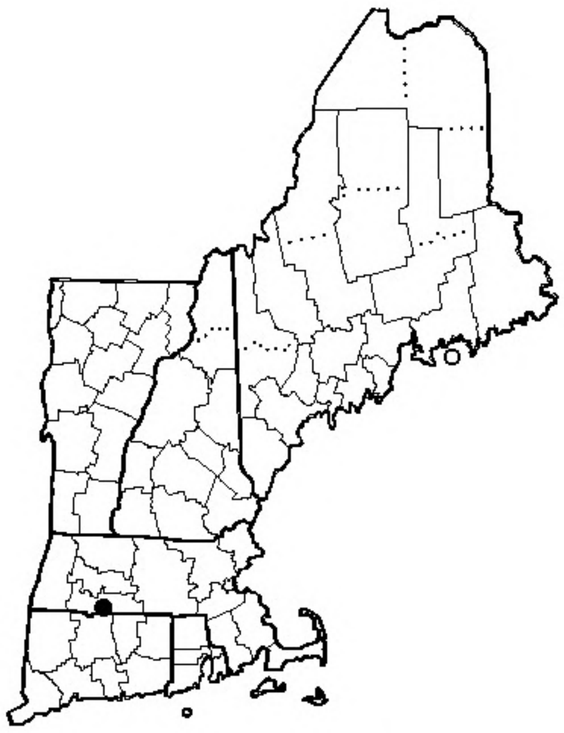
CARDUUS NUTANS



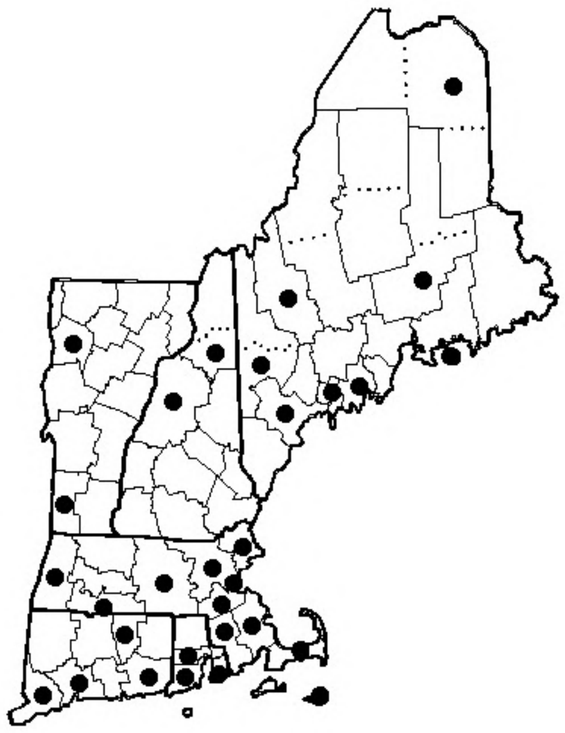
CARTHAMUS TINCTORIUS



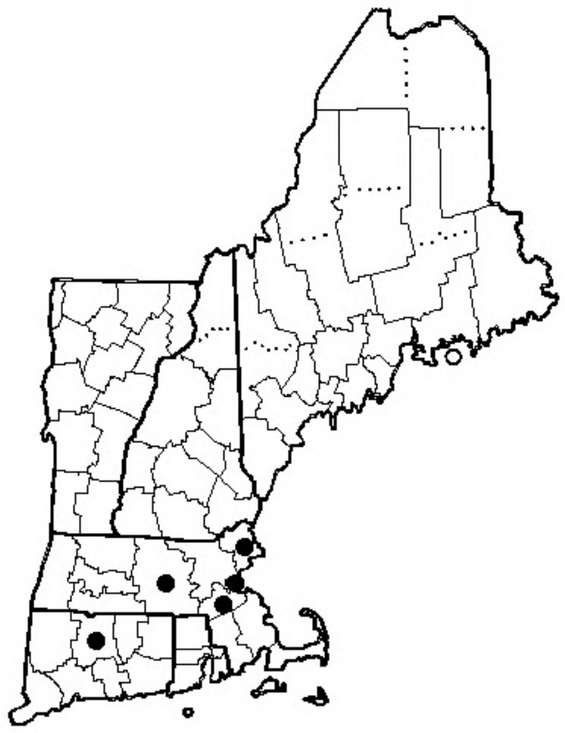
CENTAUREA BENEDICTA



CENTAUREA CALCITRAPA

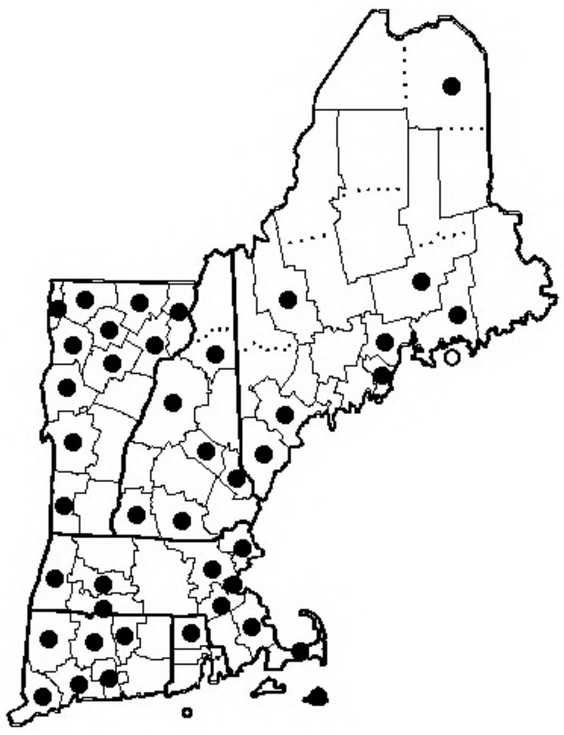


CENTAUREA CYANUS

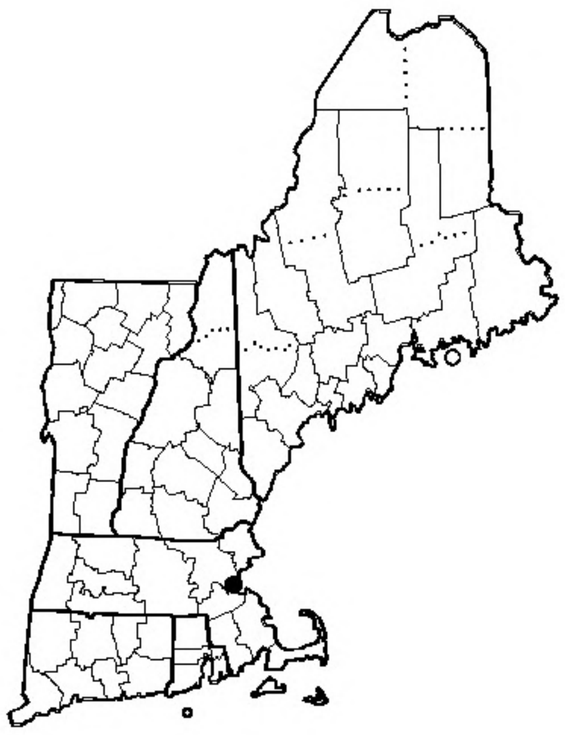


CENTAUREA DIFFUSA

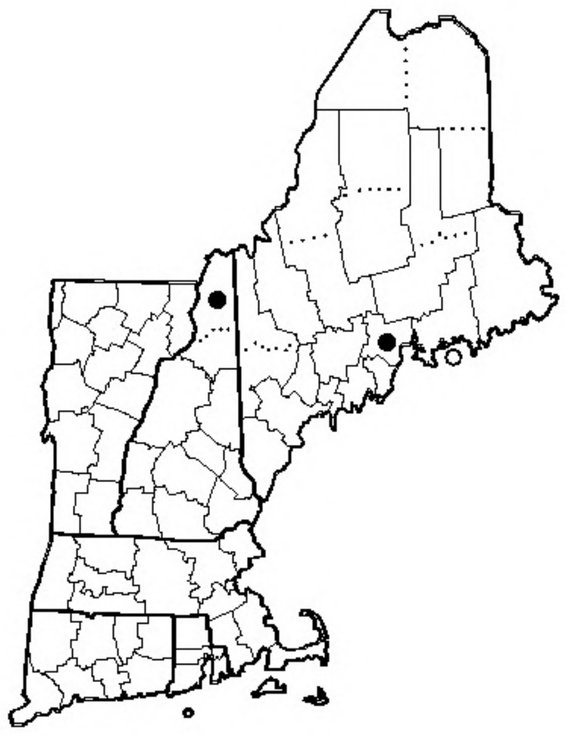
Figure 10. Distribution maps.



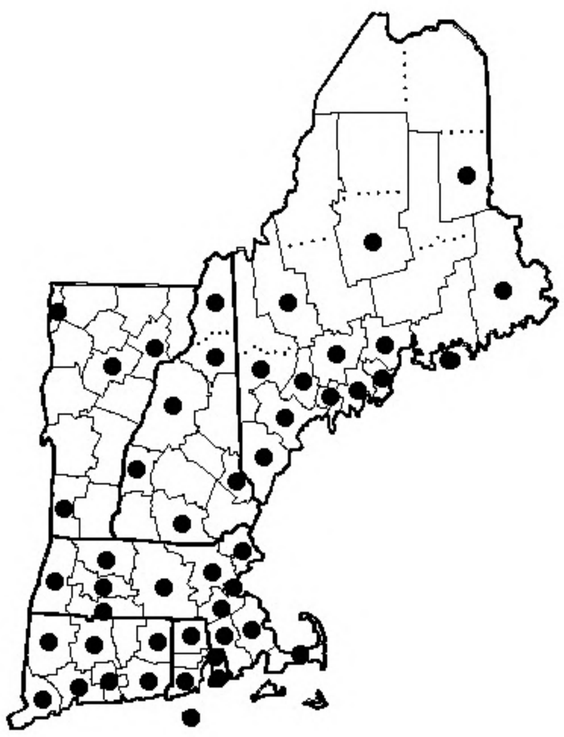
CENTAUREA JACEA



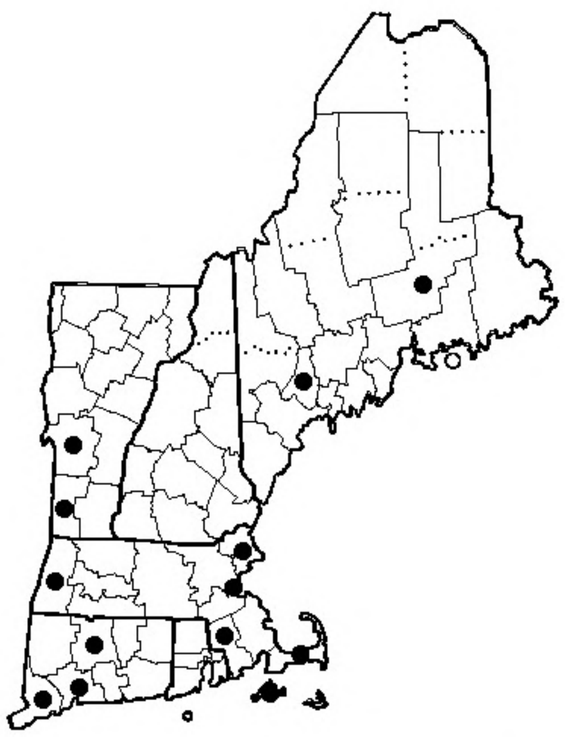
CENTAUREA MELITENSIS



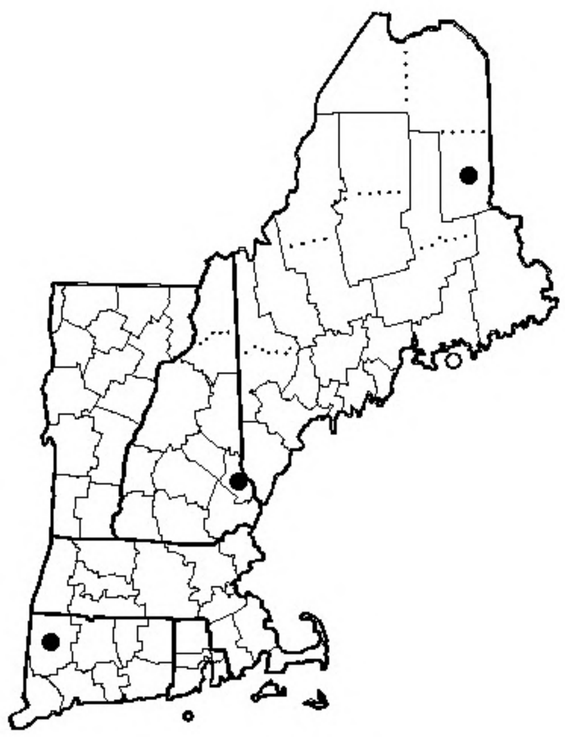
CENTAUREA MONTANA



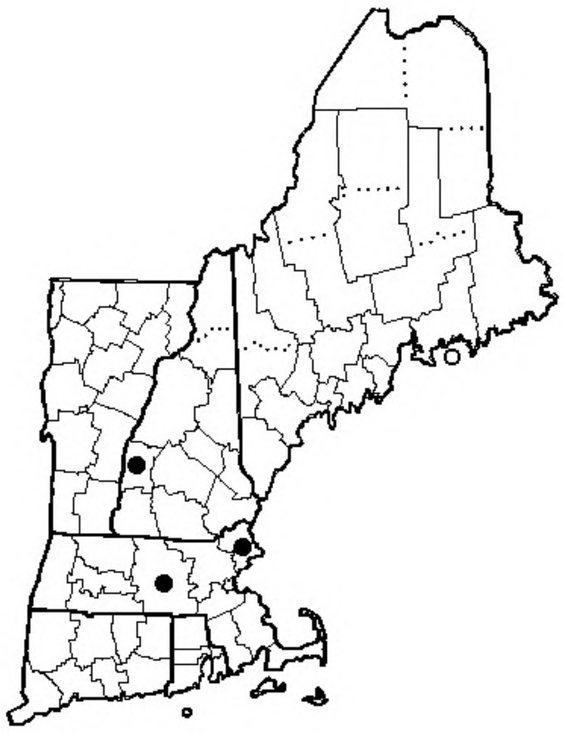
CENTAUREA NIGRA



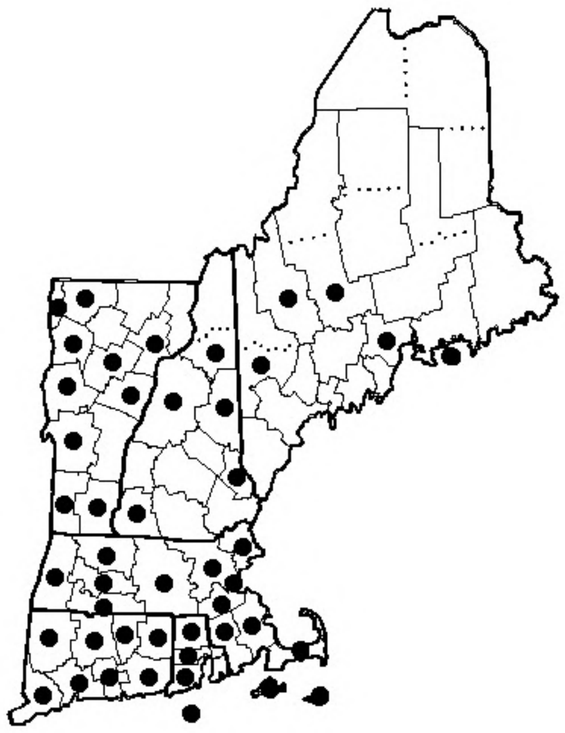
CENTAUREA NIGRESCENS



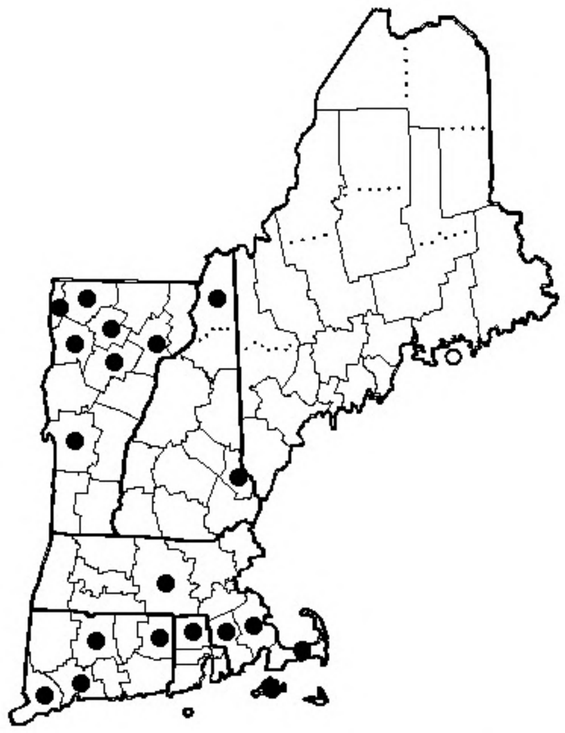
CENTAUREA SCABIOSA



CENTAUREA SOLSTITIALIS

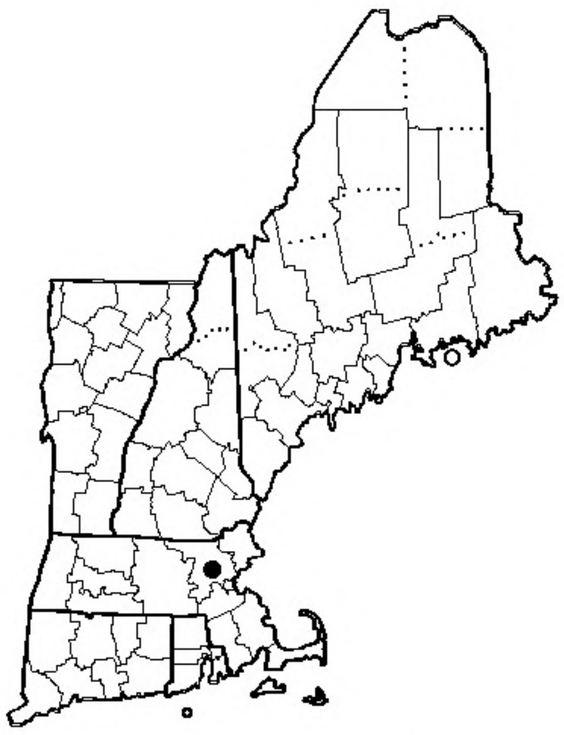


CENTAUREA STOEBE
subsp. *MICRANTHOS*

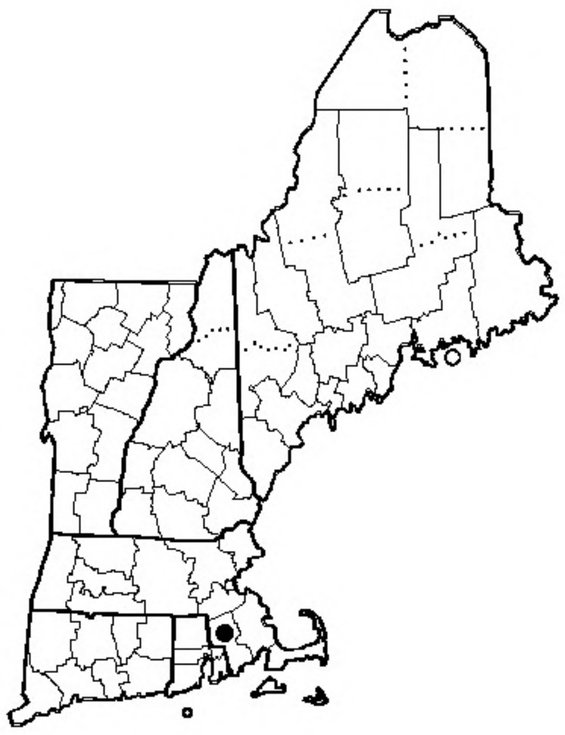


CENTAUREA X *MONCKTONII*

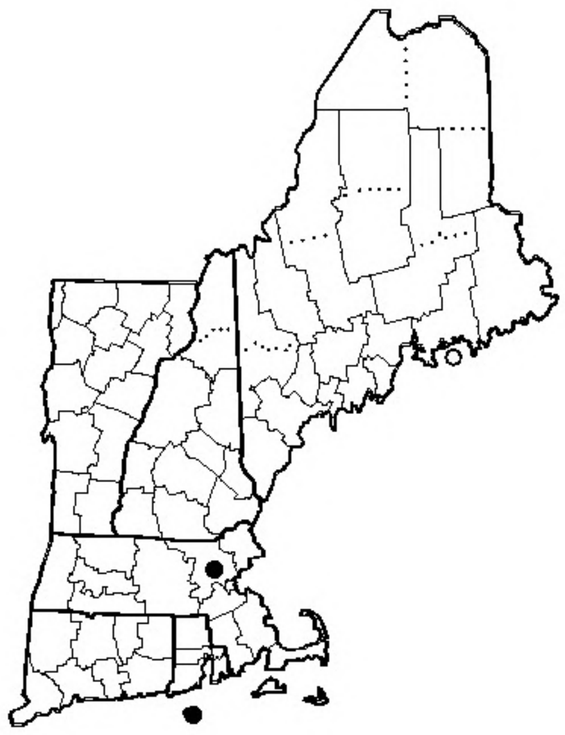
Figure 11. Distribution maps.



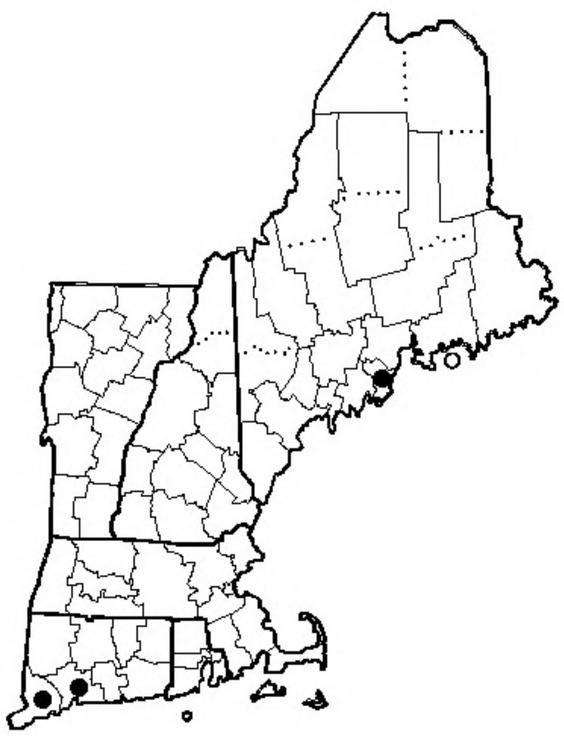
CHAENACTIS GLABRIUSCULA
var. *GLABRIUSCULA*



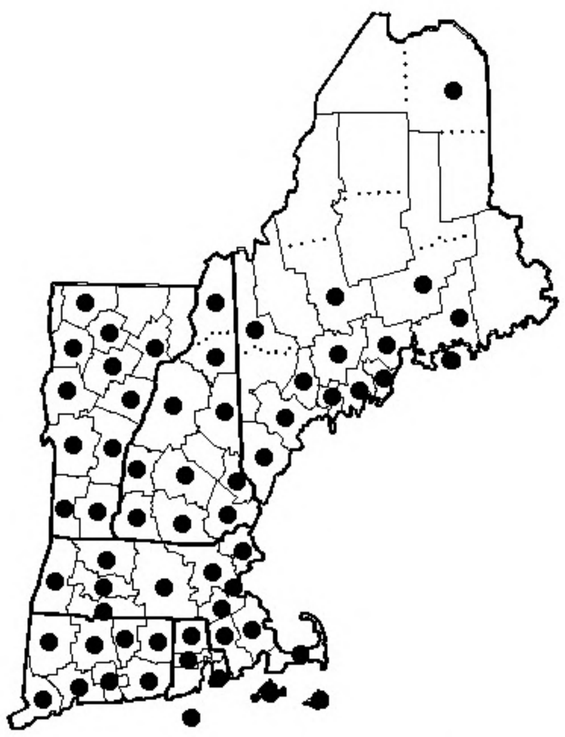
CHAMAEMELUM NOBILE



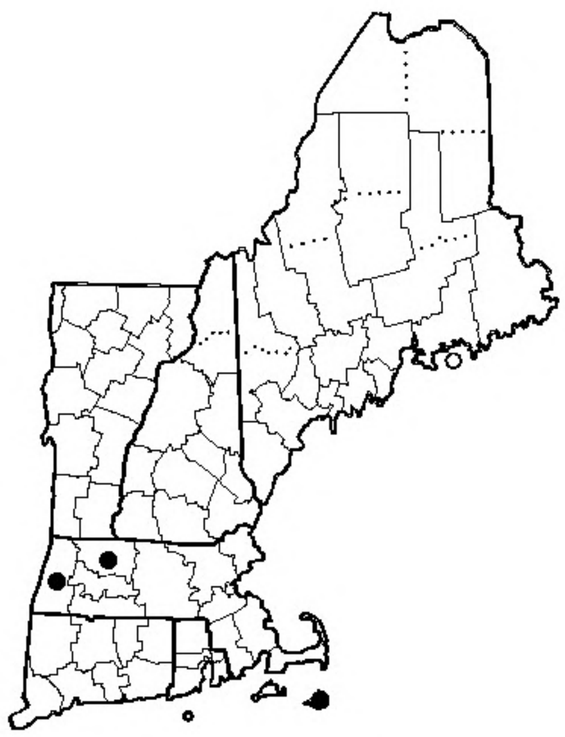
Chrysopsis mariana



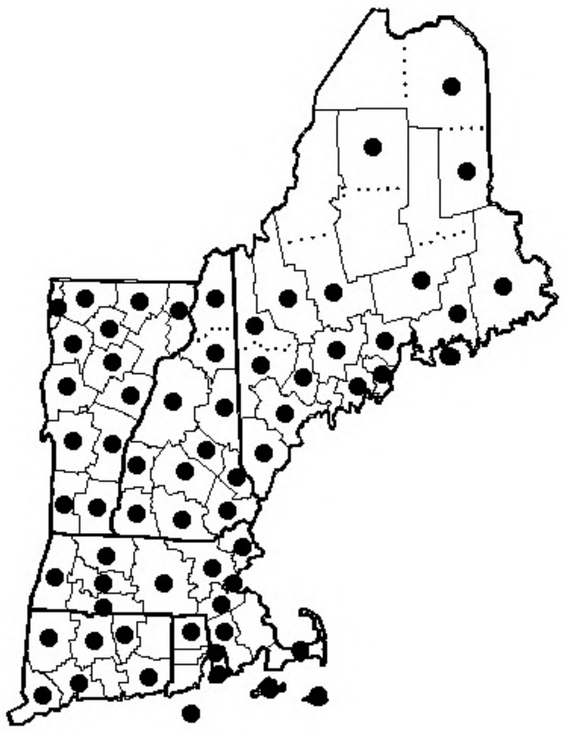
CICHORIUM ENDIVIA



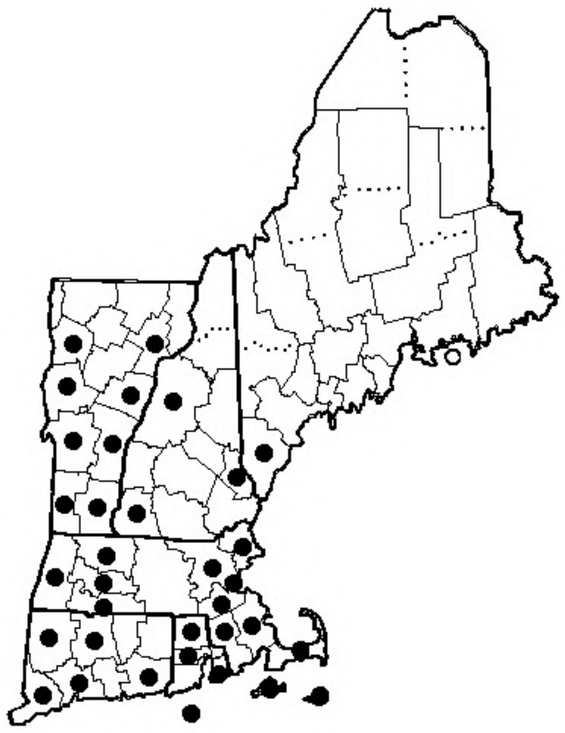
CICHORIUM INTYBUS



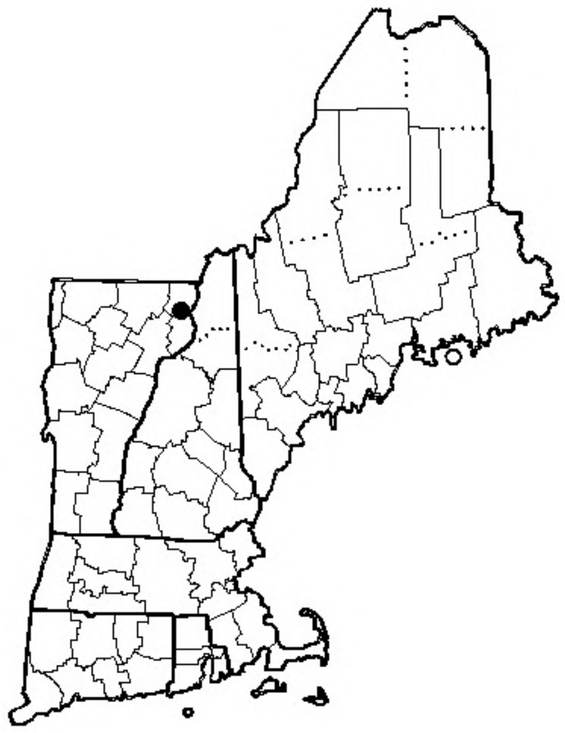
Cirsium altissimum



CIRSIUM ARVENSE

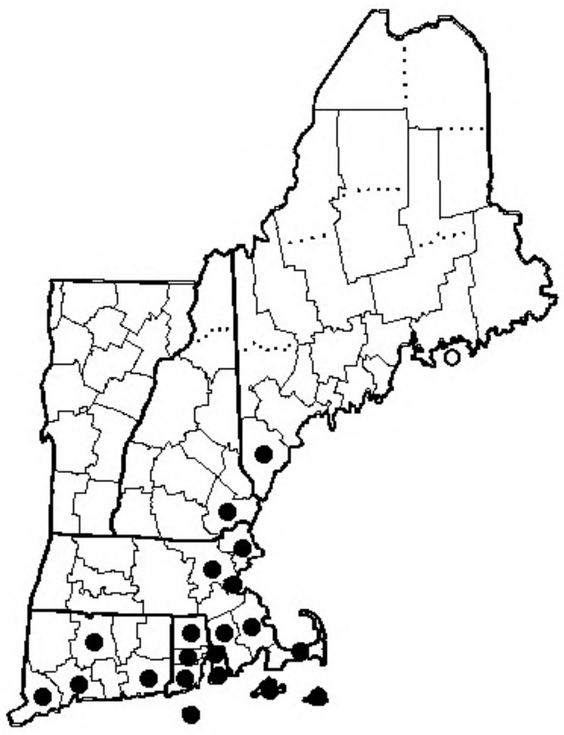


Cirsium discolor

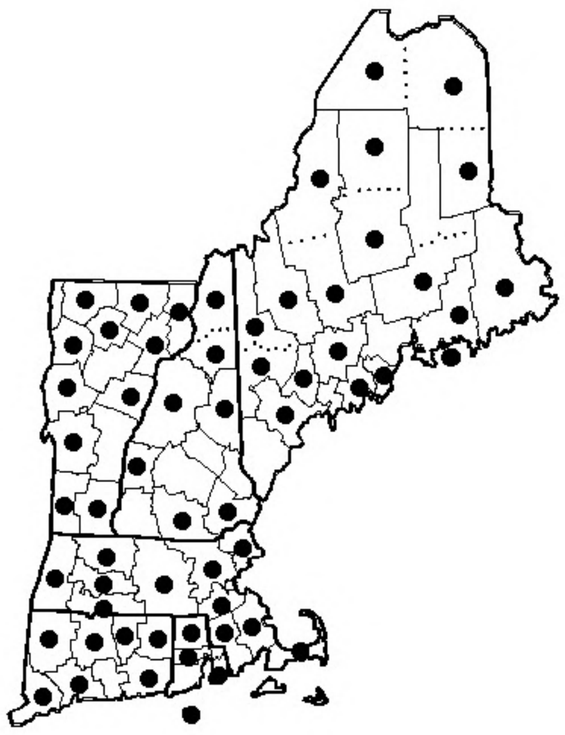


CIRSIUM FLODMANII

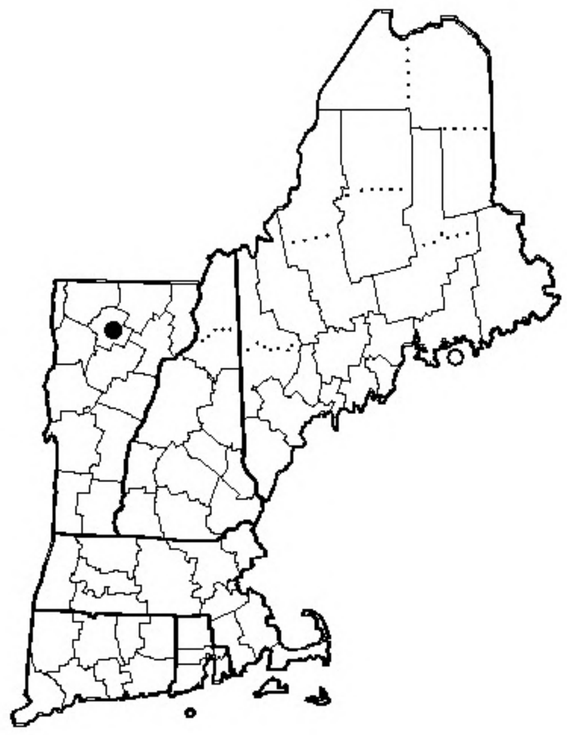
Figure 12. Distribution maps.



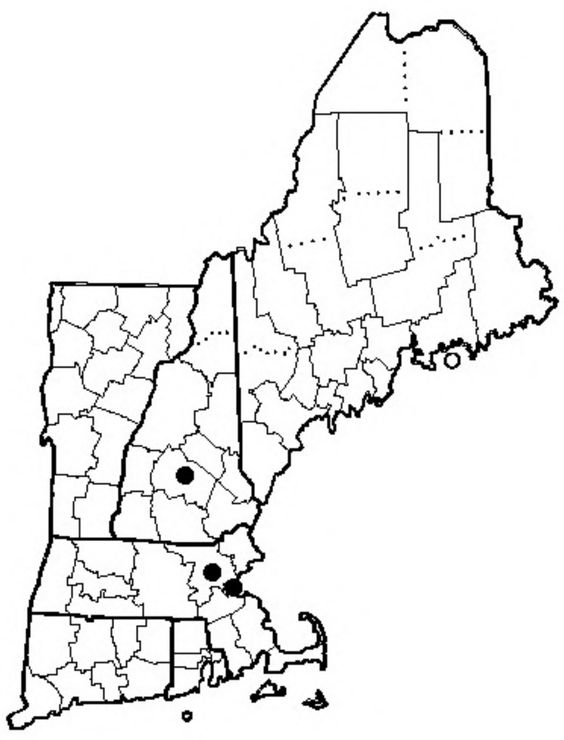
Cirsium horridulum
var. *horridulum*



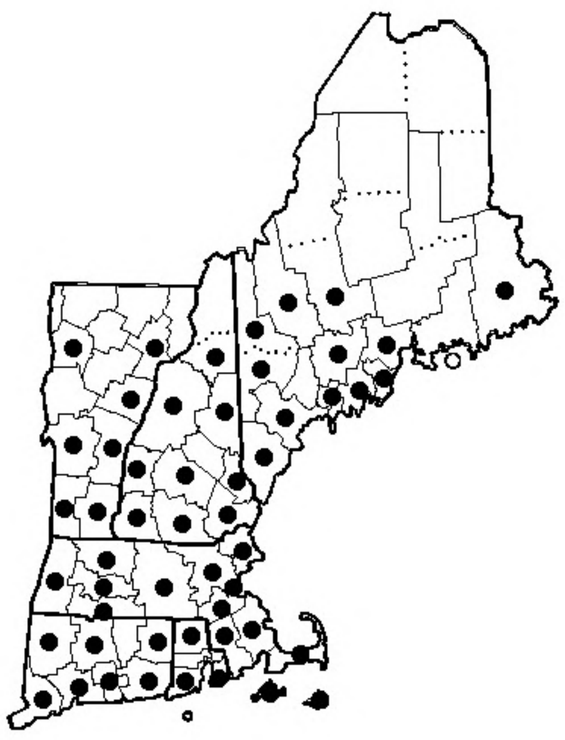
Cirsium muticum



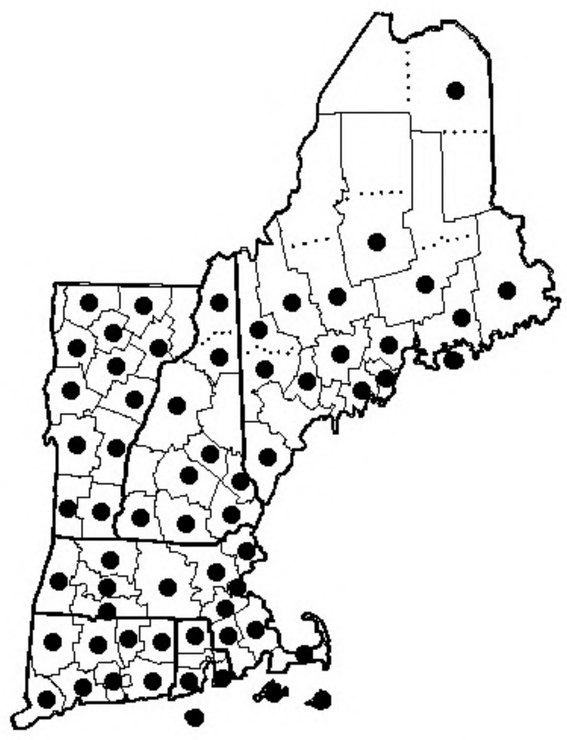
CIRSIUM OCHROCENTRUM
var. *OCHROCENTRUM*



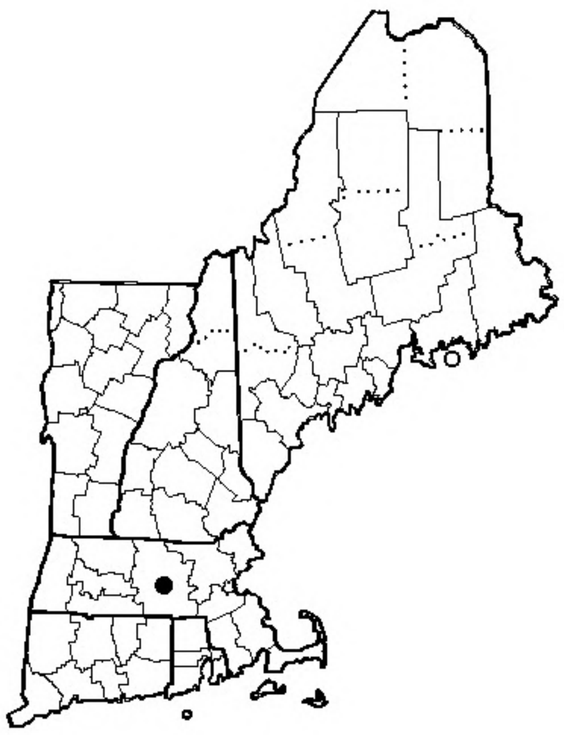
CIRSIUM PALUSTRE



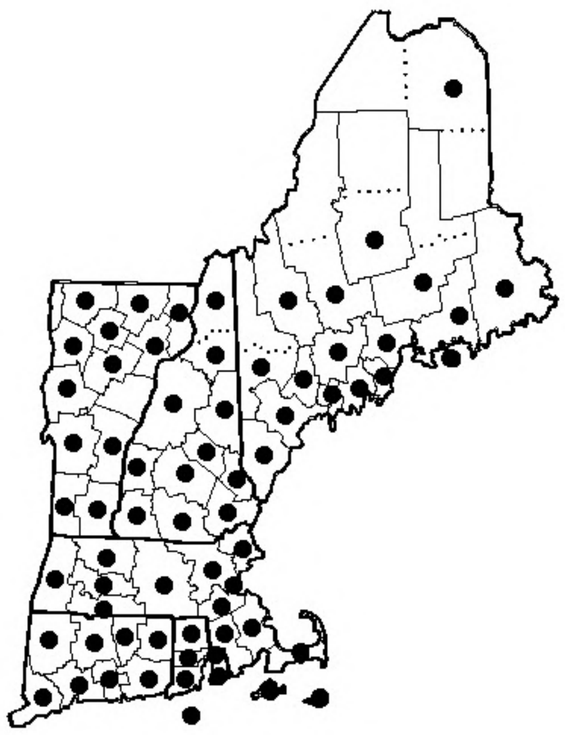
Cirsium pumilum
var. *pumilum*



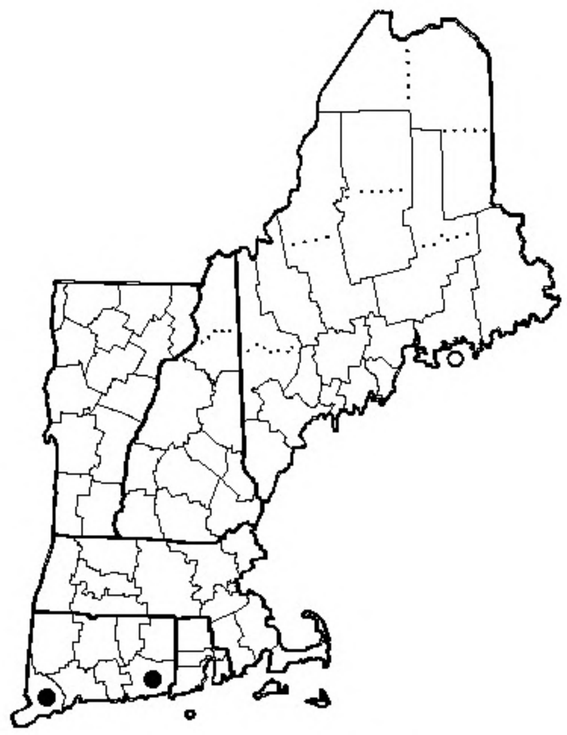
CIRSIUM VULGARE



CONYZA BONARIENSIS

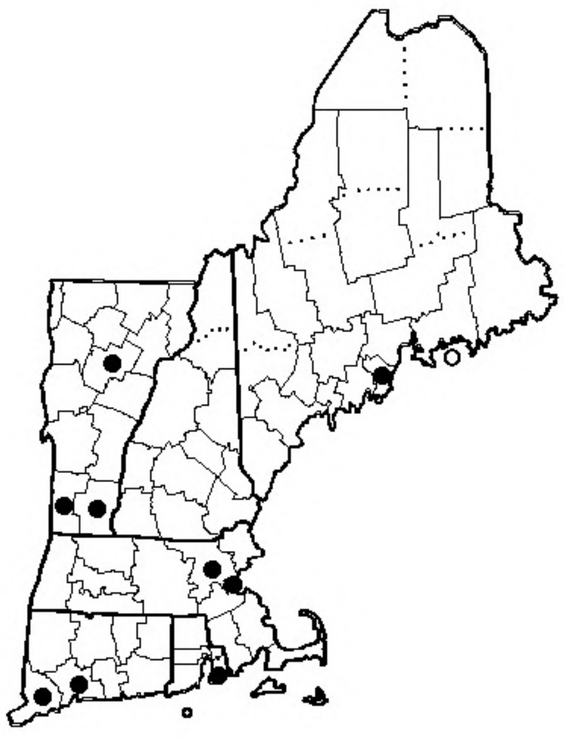


Conyza canadensis

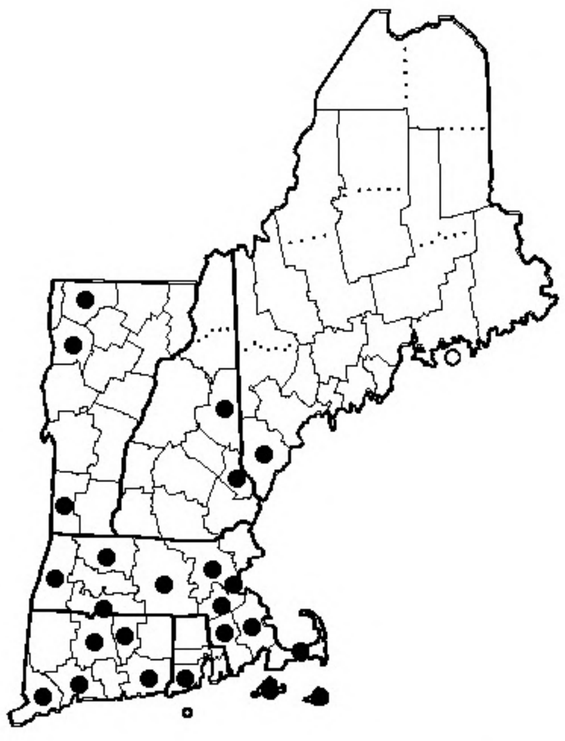


COREOPSIS BASALIS

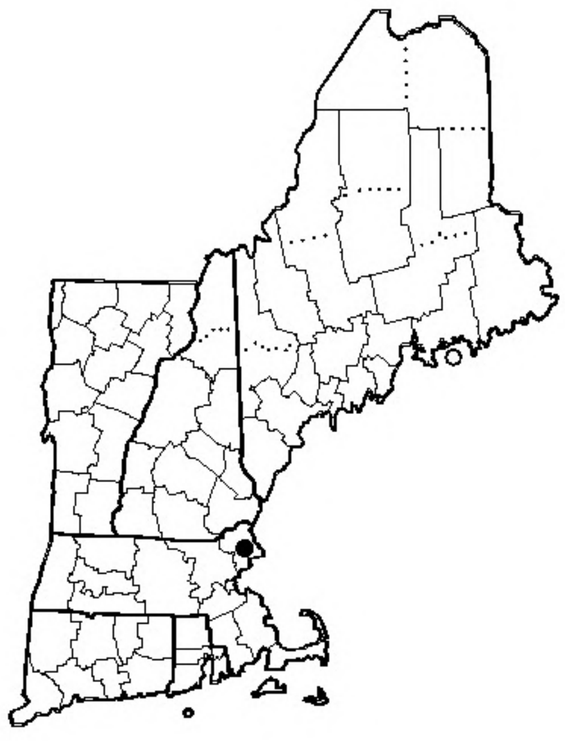
Figure 13. Distribution maps.



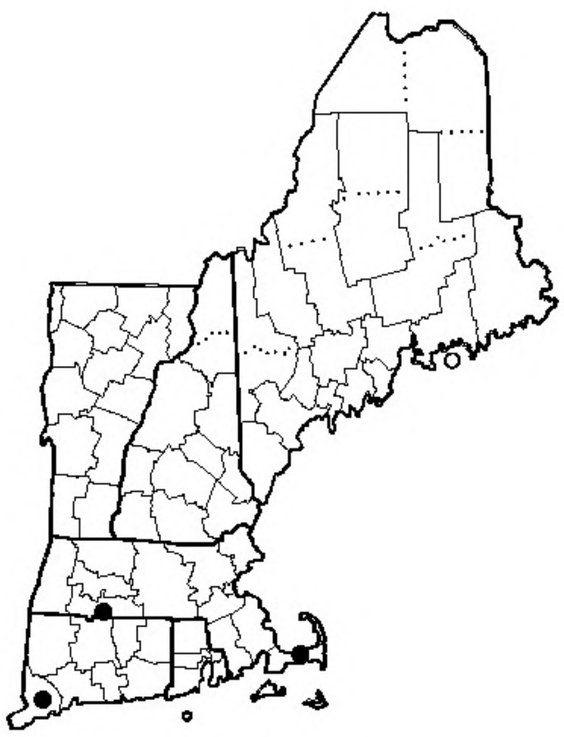
COREOPSIS GRANDIFLORA



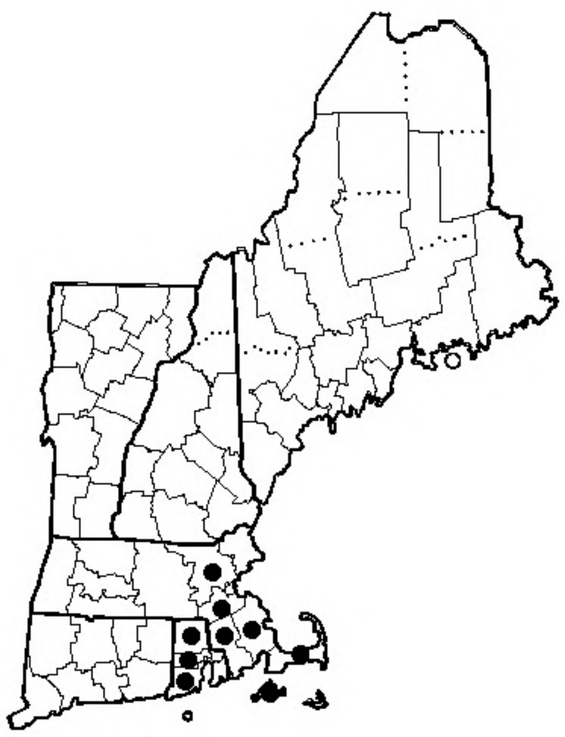
COREOPSIS LANCEOLATA



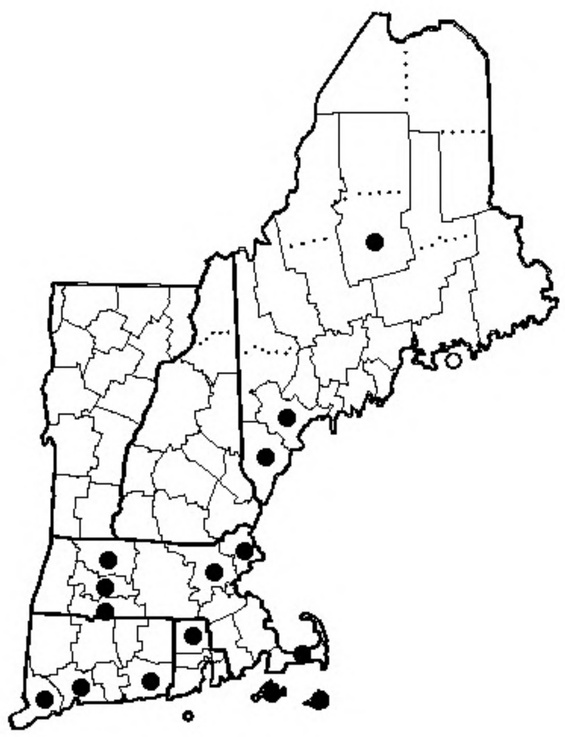
COREOPSIS MAJOR



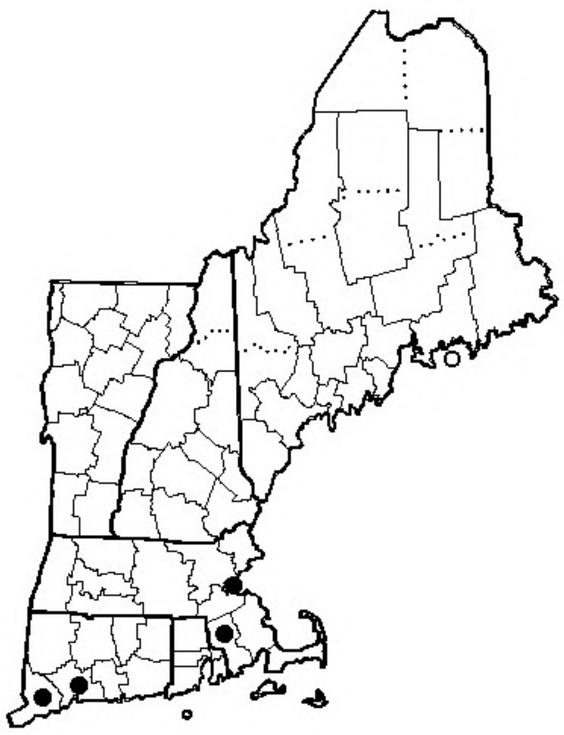
COREOPSIS PUBESCENS



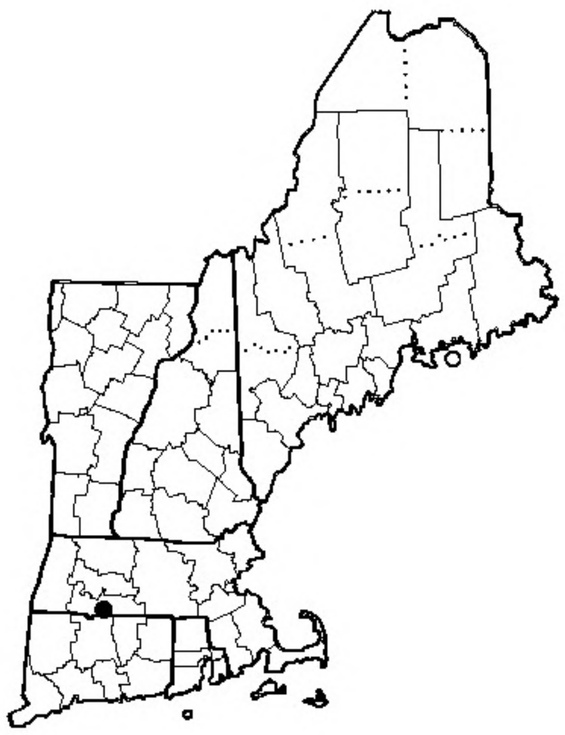
Coreopsis rosea



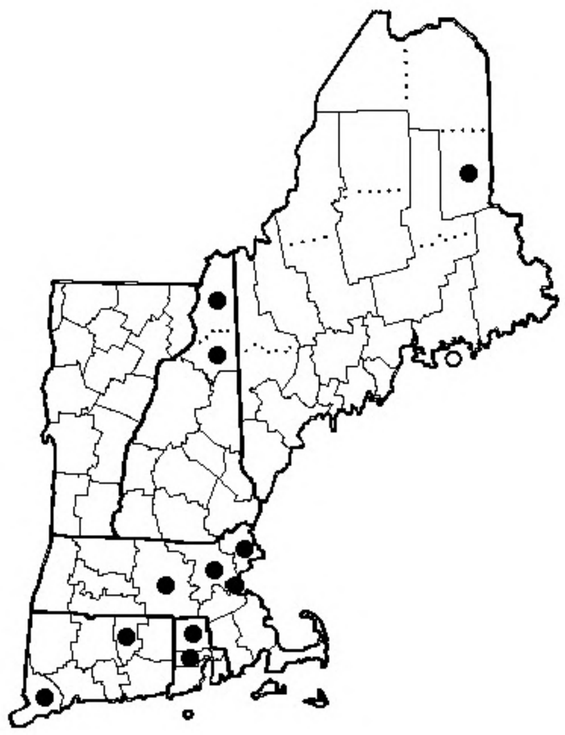
COREOPSIS TINCTORIA



COREOPSIS TRIPTERIS

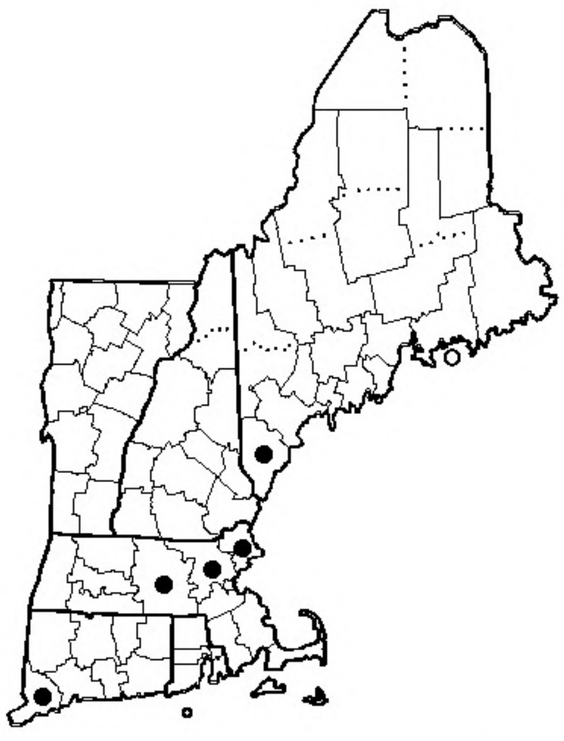


COREOPSIS VERTICILLATA

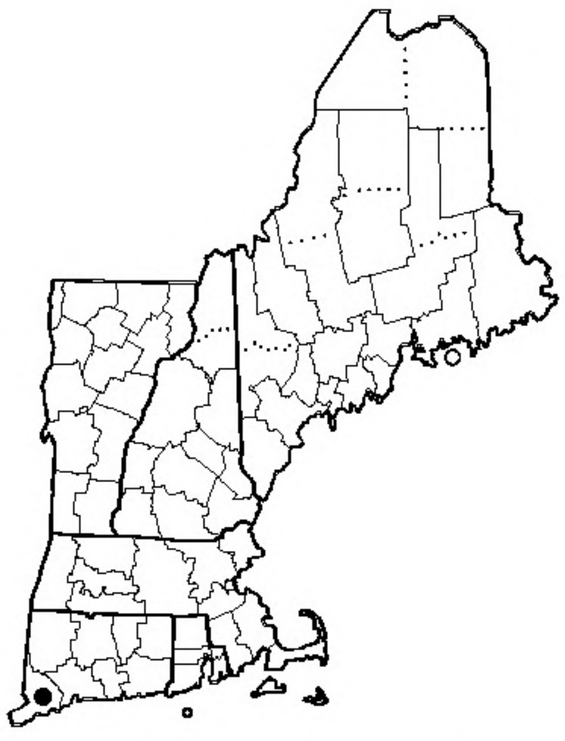


COSMOS BIPINNATUS

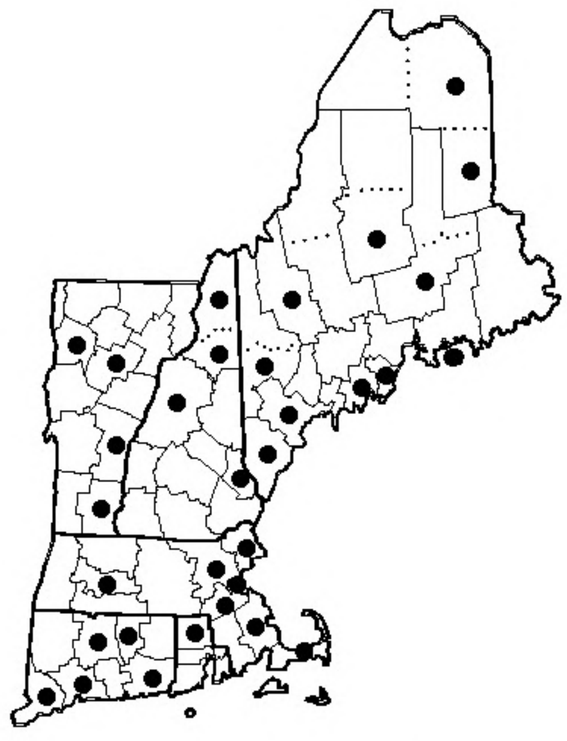
Figure 14. Distribution maps.



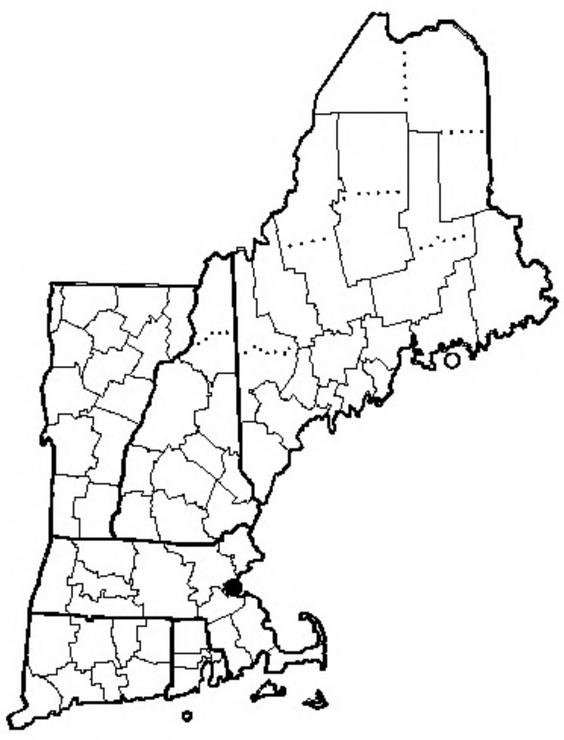
COSMOS PARVIFLORUS



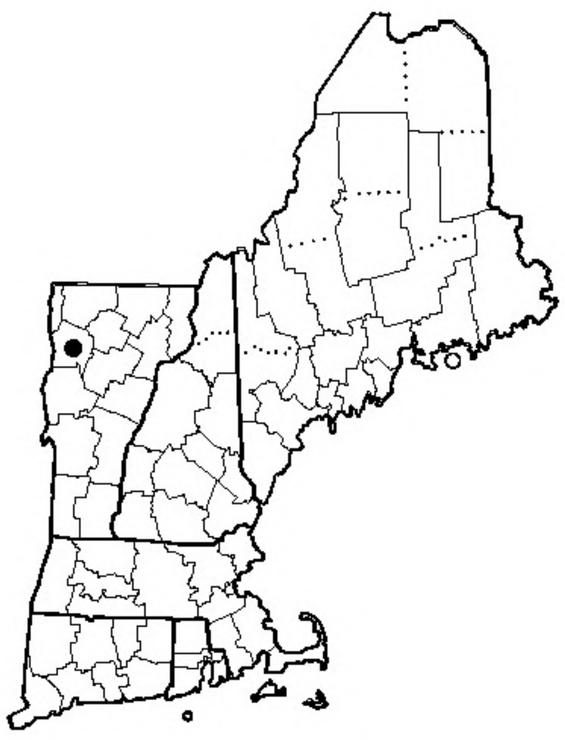
COSMOS SULPHUREUS



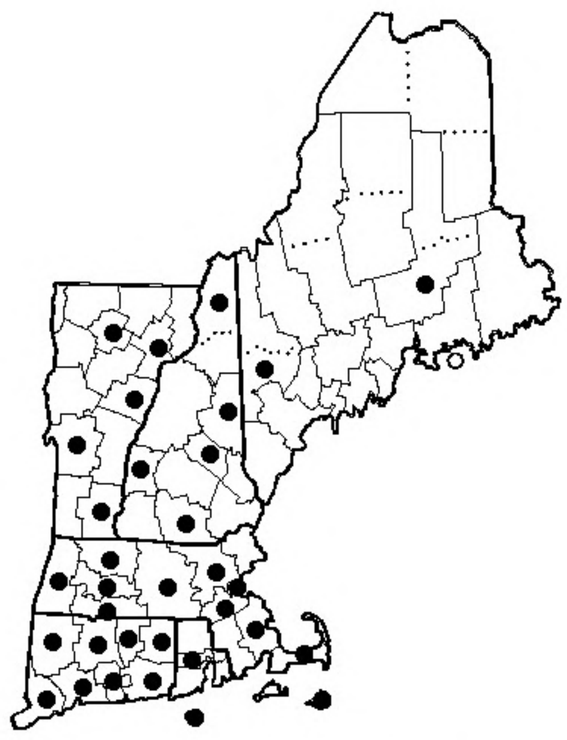
COTA TINCTORIA



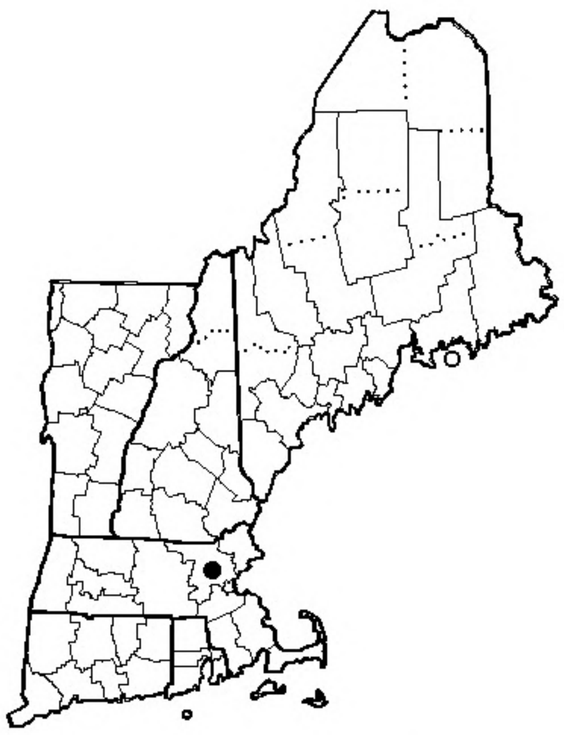
COTULA CORONOPIFOLIA



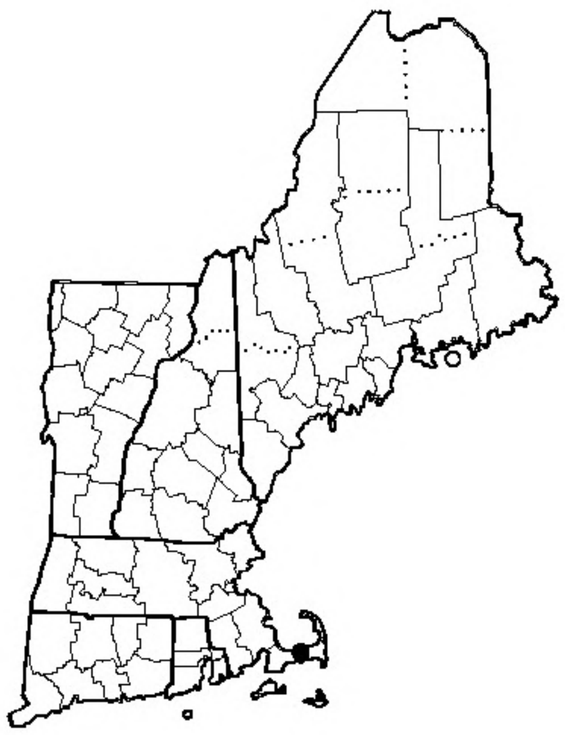
CREPIS BIENNIS



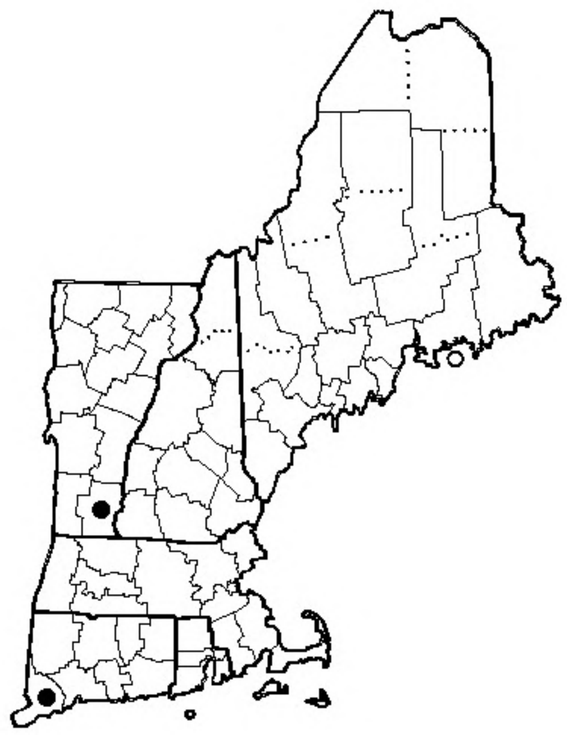
CREPIS CAPILLARIS



CREPIS FOETIDA

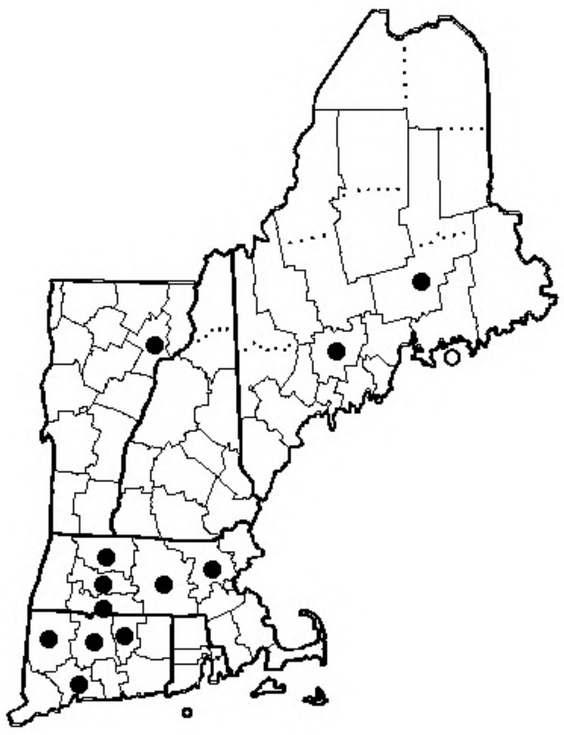


CREPIS NICAEENSIS

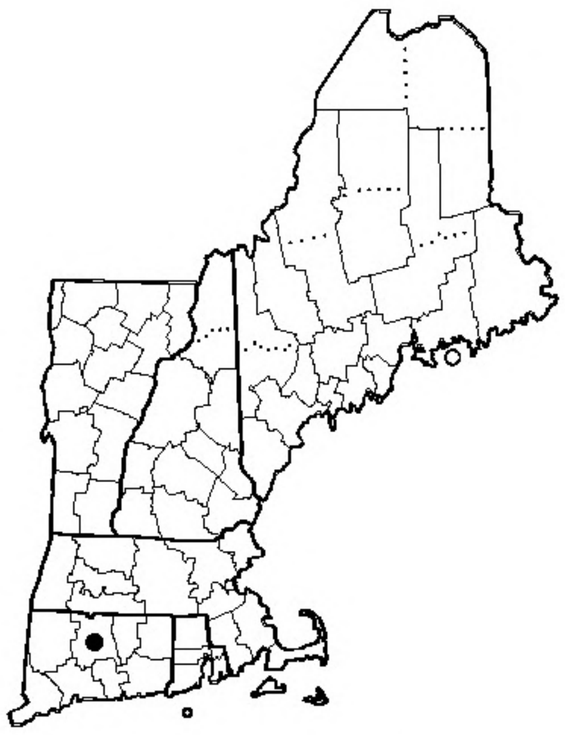


CREPIS SETOSA

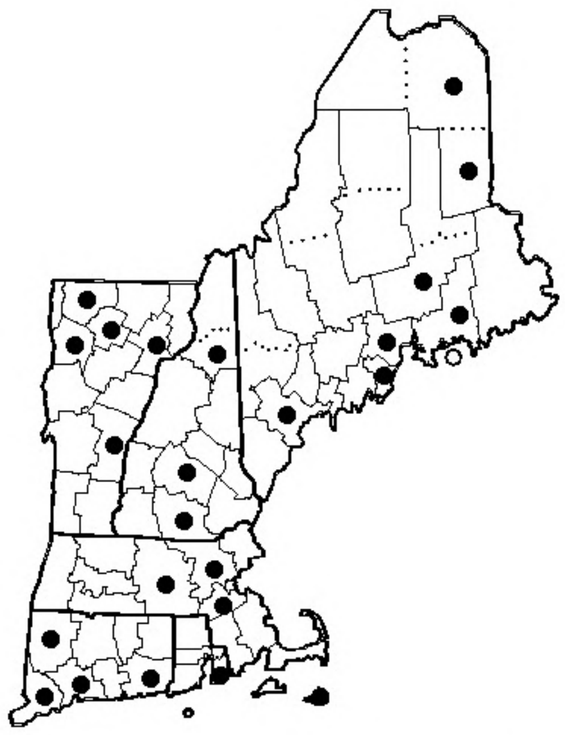
Figure 15. Distribution maps.



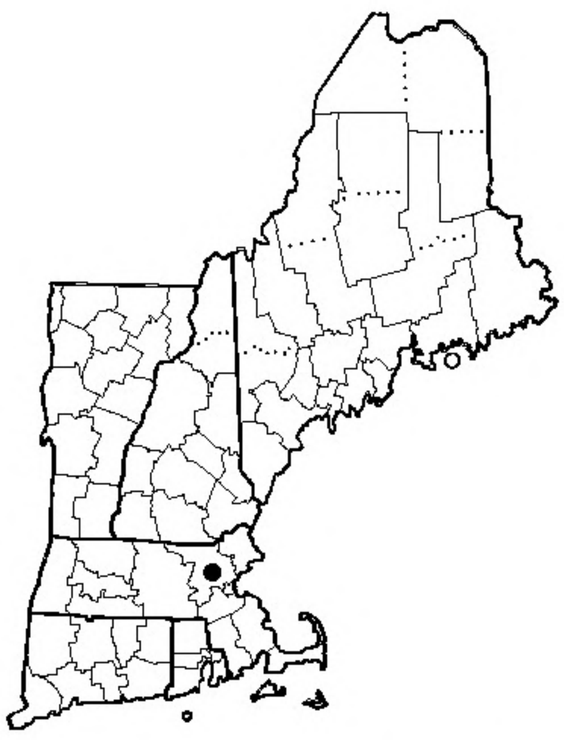
CREPIS TECTORUM



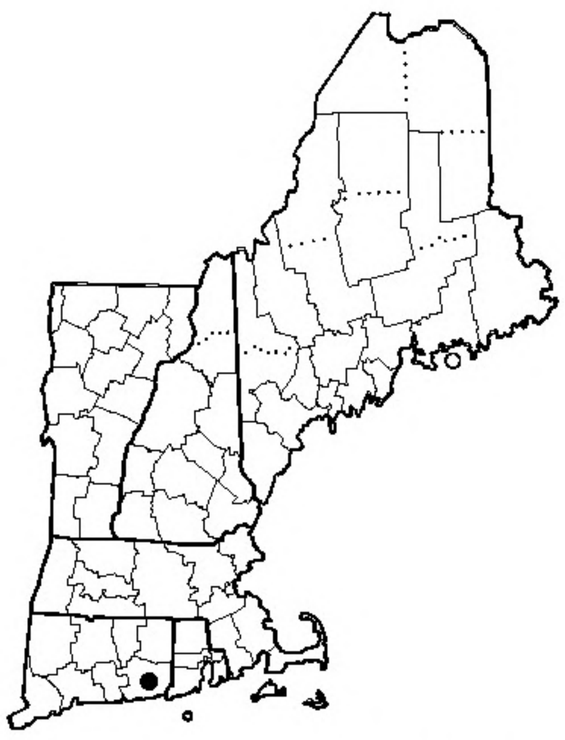
CREPIS VESICARIA



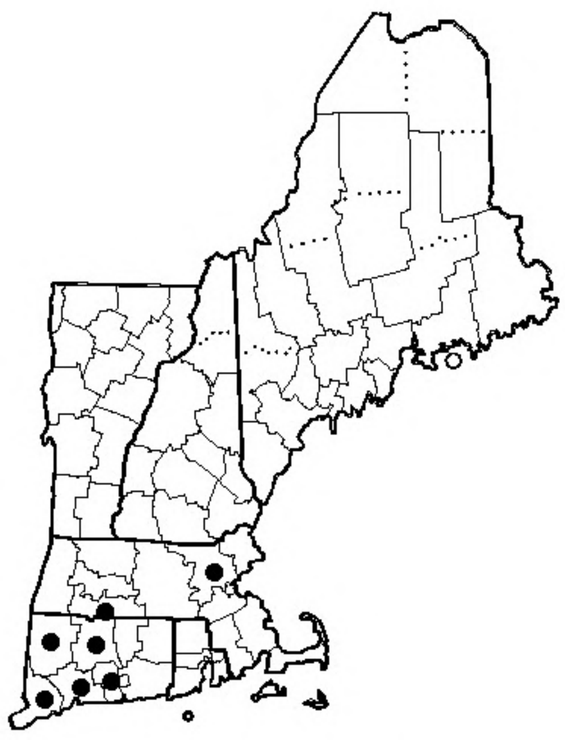
CYCLACHAENA XANTHIIFOLIA



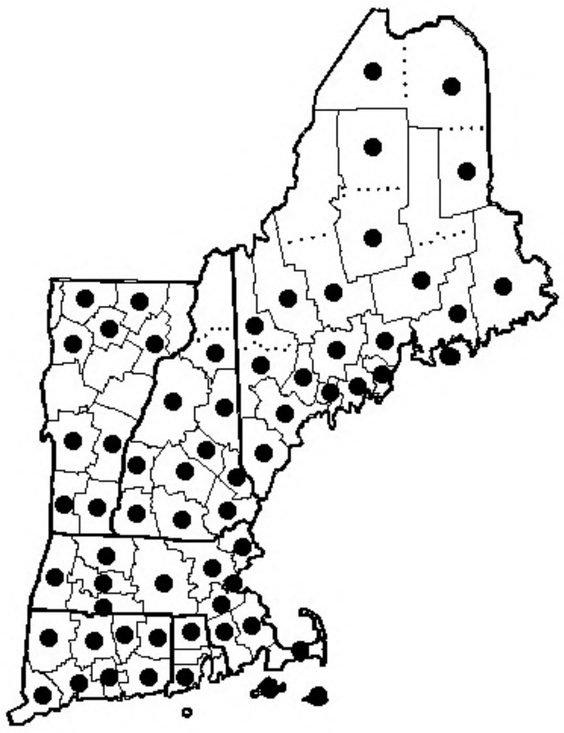
DEINANDRA FASCICULATA



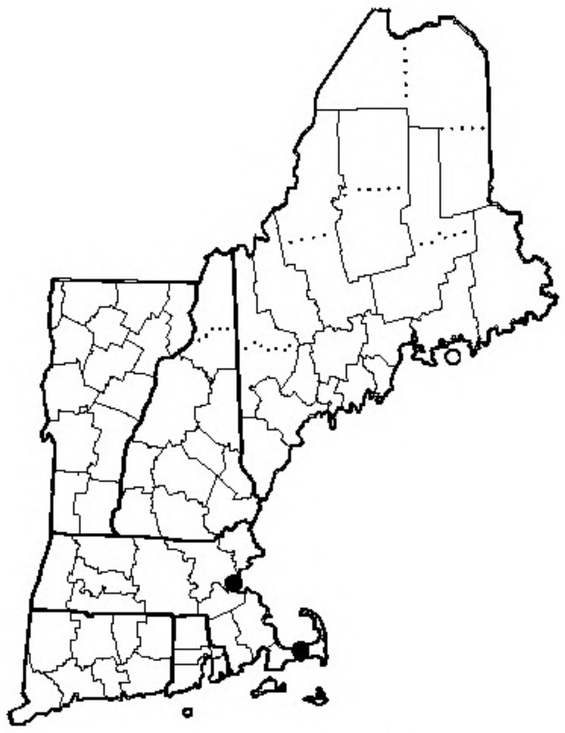
DITTRICHIA GRAVEOLENS



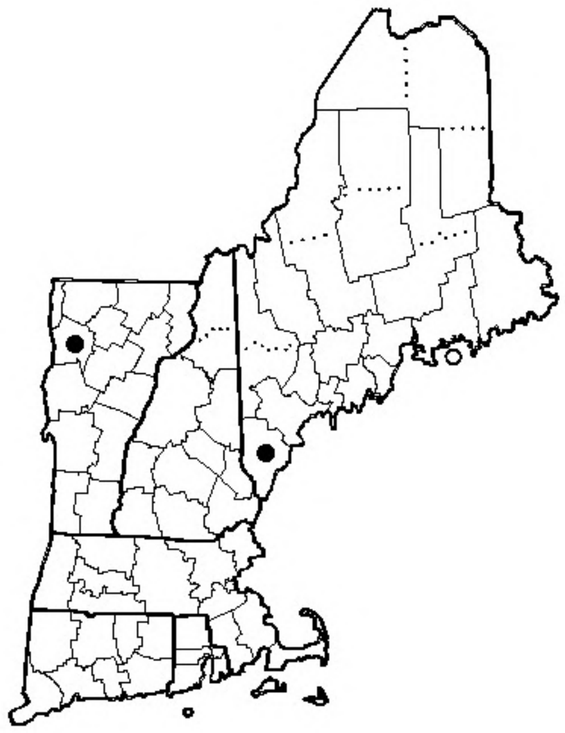
Doellingeria infirma



Doellingeria umbellata
var. *umbellata*

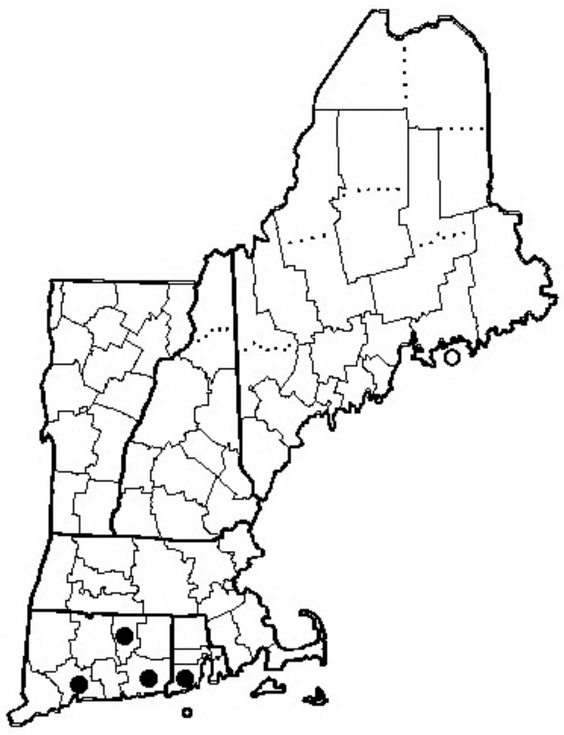


DORONICUM PARDALIANCHES

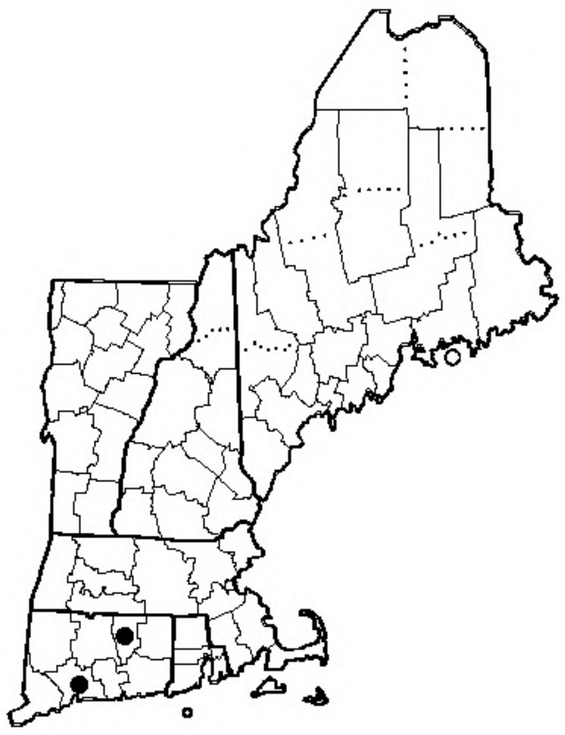


DYSSODIA PAPPOSA

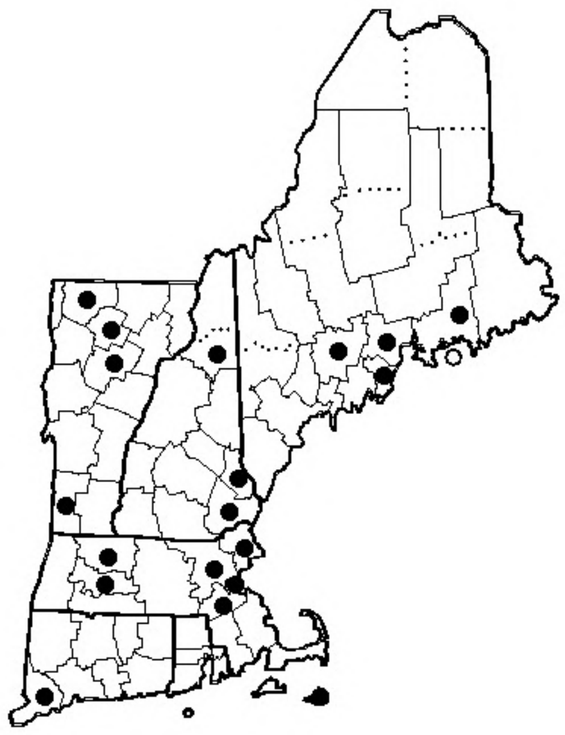
Figure 16. Distribution maps.



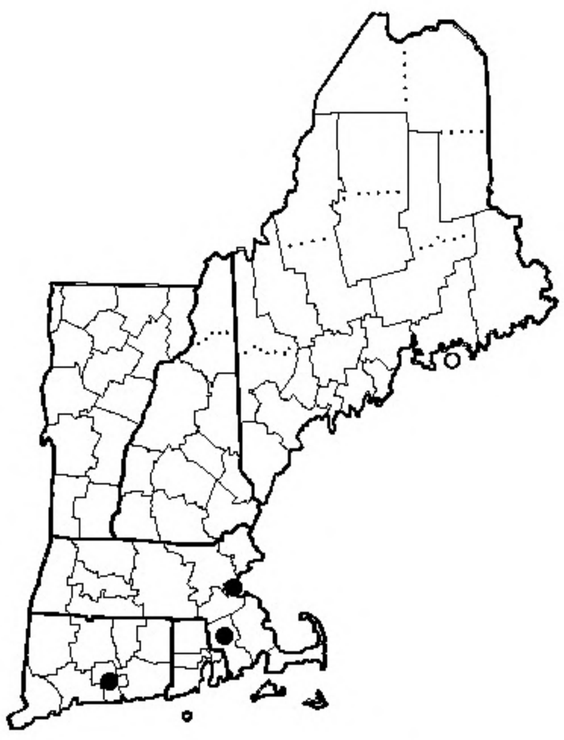
ECHINACEA PALLIDA



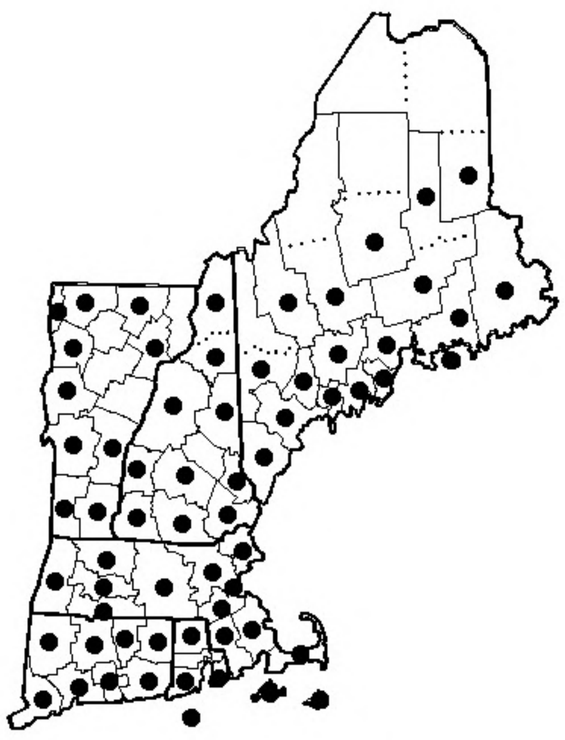
ECHINACEA PURPUREA



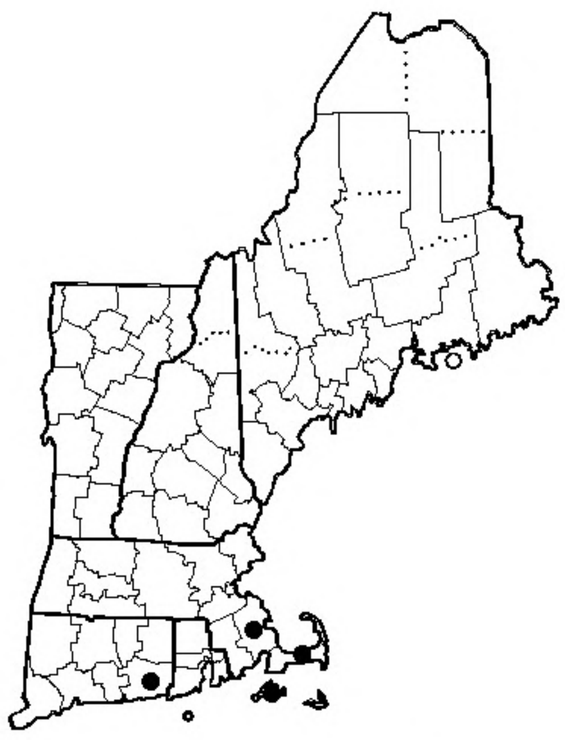
ECHINOPS SPHAEROCEPHALUS



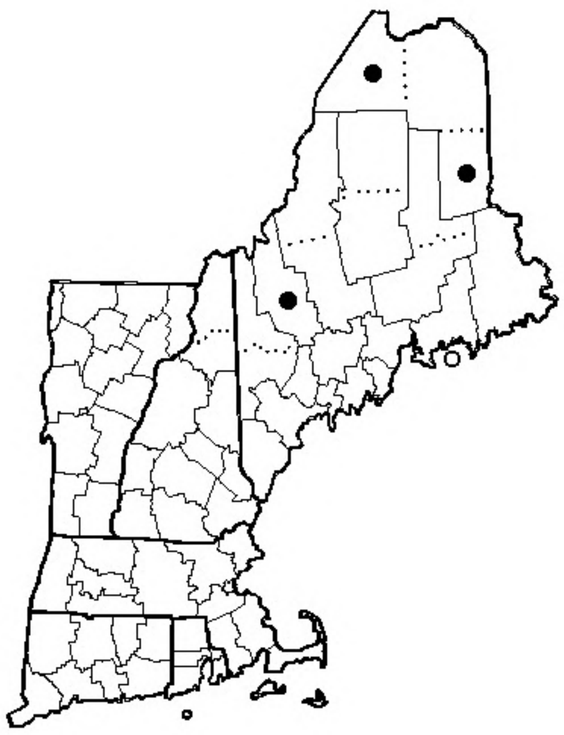
ECLIPTA PROSTRATA



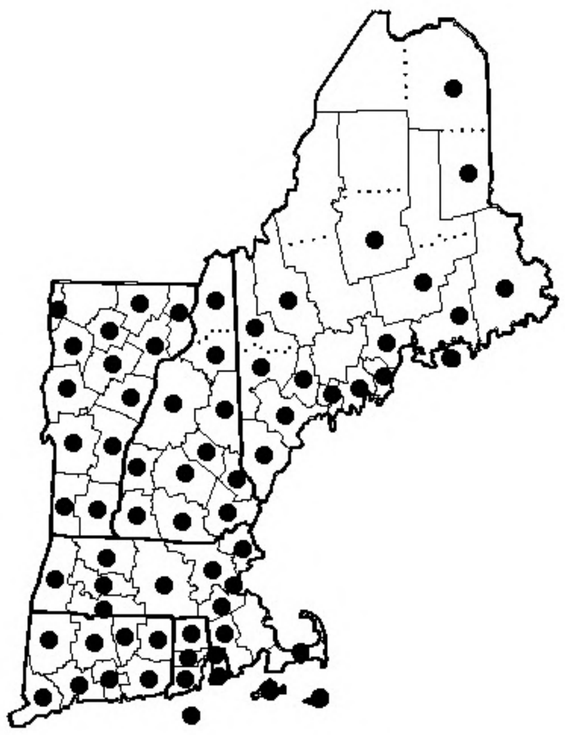
Erechtites hieraciifolius
var. *hieraciifolius*



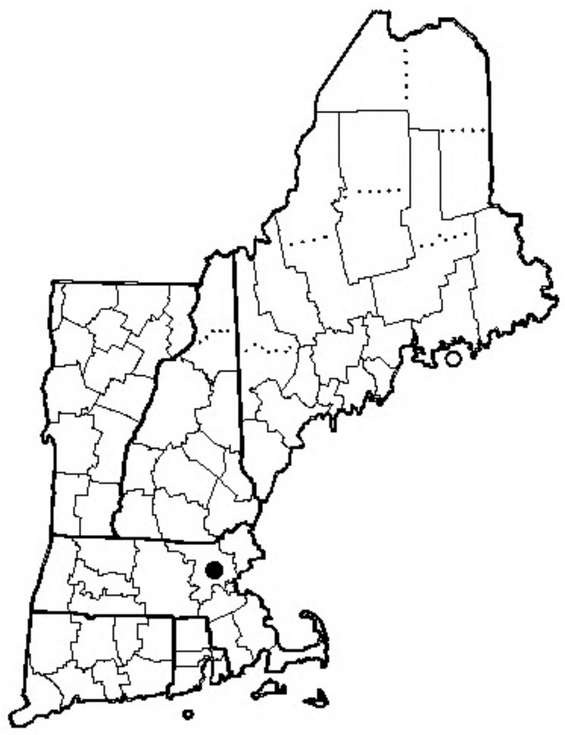
Erechtites hieraciifolius
var. *megalocarpus*



Erigeron acris
var. *kamtschaticus*

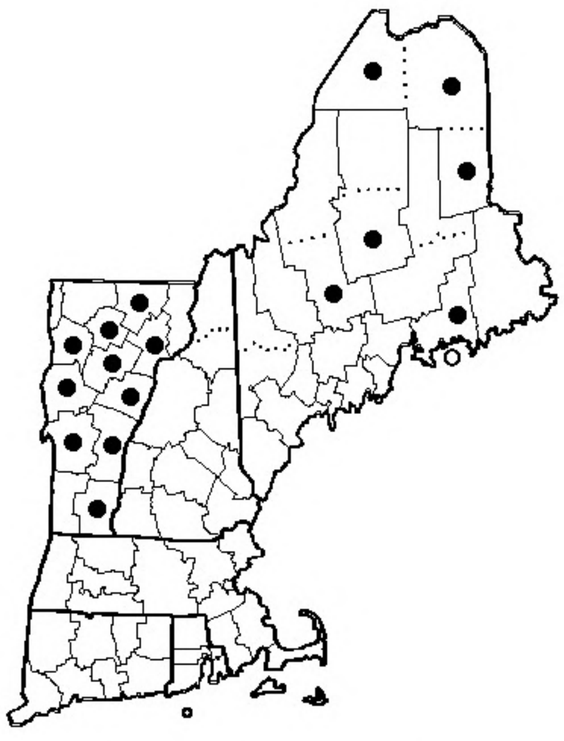


Erigeron annuus

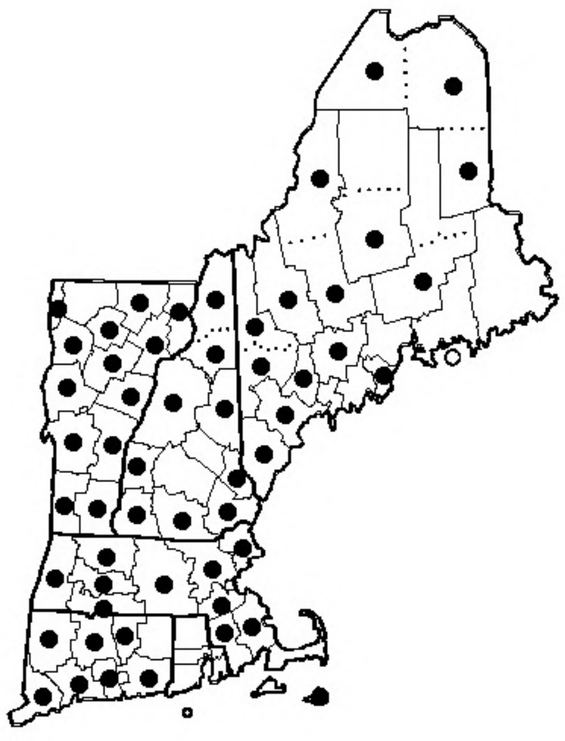


ERIGERON GLABELLUS
var. *PUBESCENS*

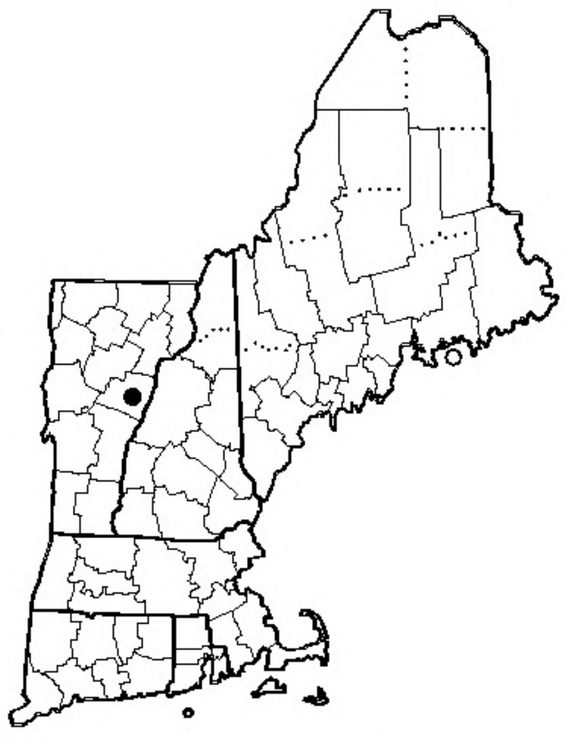
Figure 17. Distribution maps.



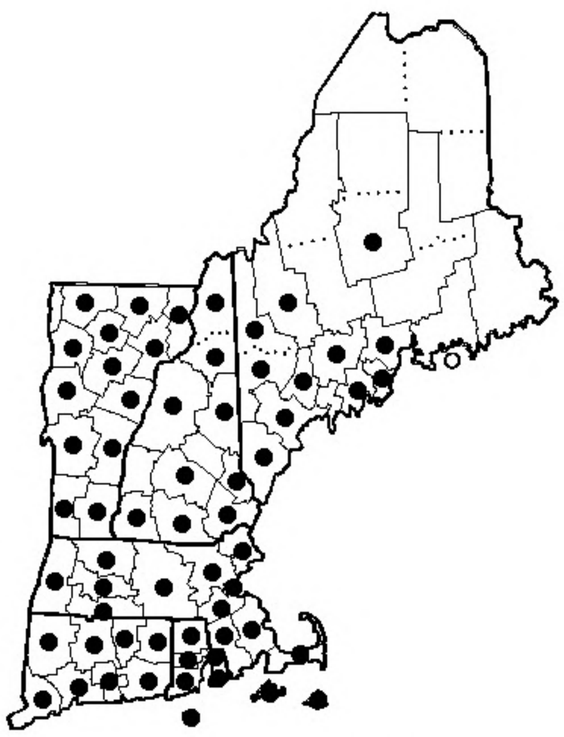
Erigeron hyssopifolius



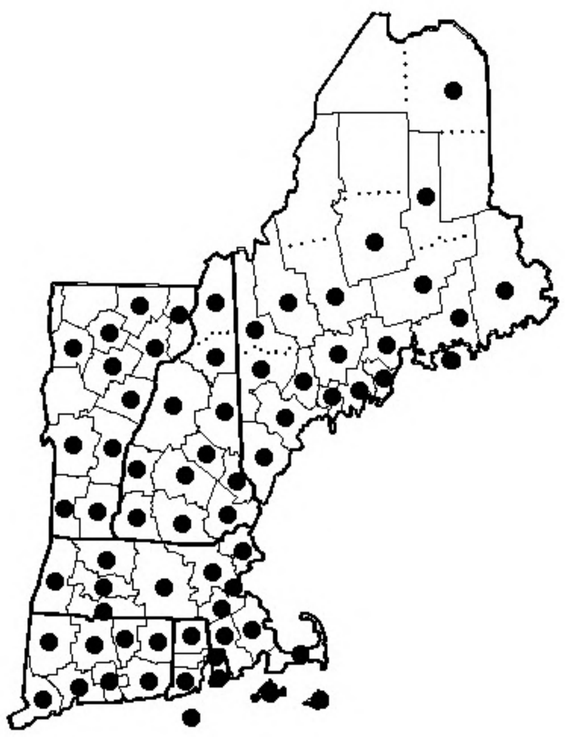
Erigeron philadelphicus
var. *philadelphicus*



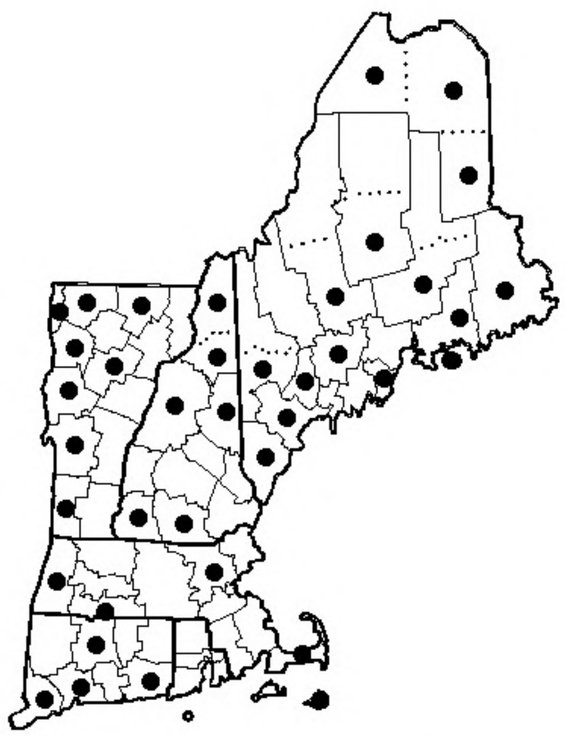
Erigeron philadelphicus
var. *provancheri*



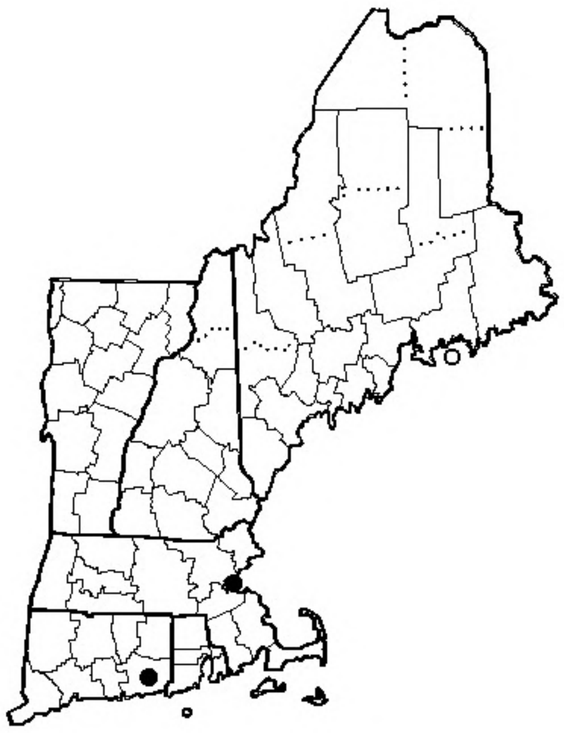
Erigeron pulchellus
var. *pulchellus*



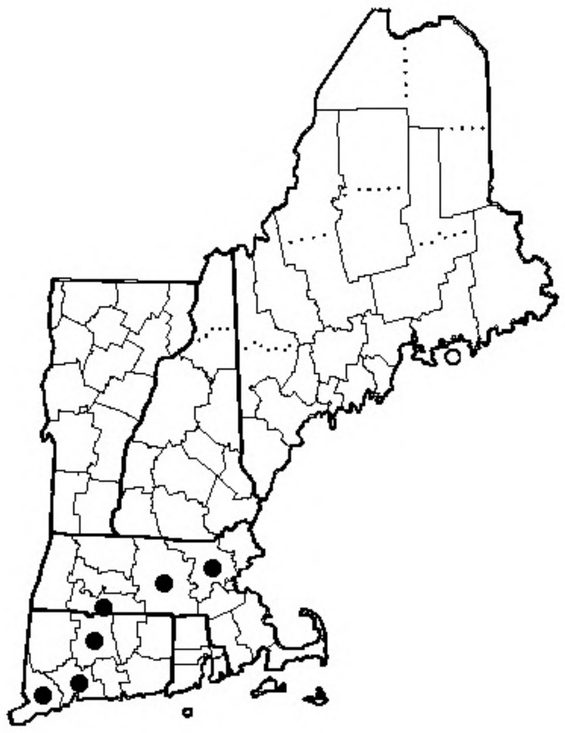
Erigeron strigosus
var. *strigosus*



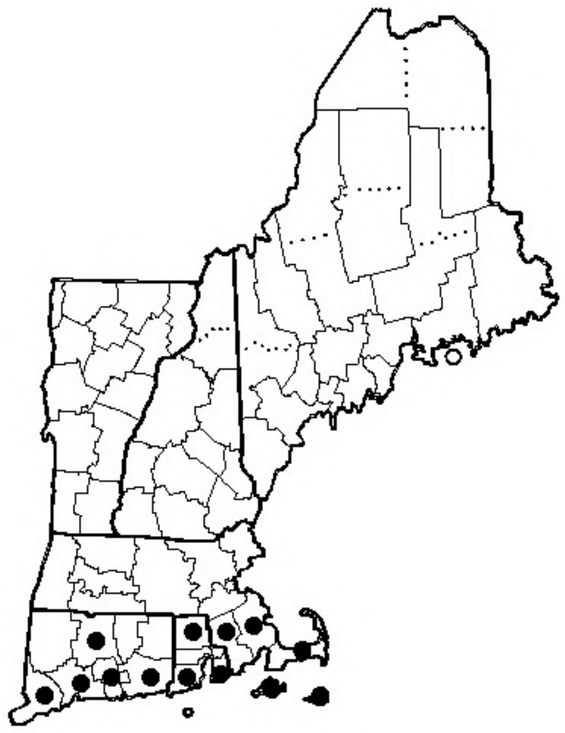
Erigeron strigosus
var. *septentrionalis*



Eupatorium album
var. *album*

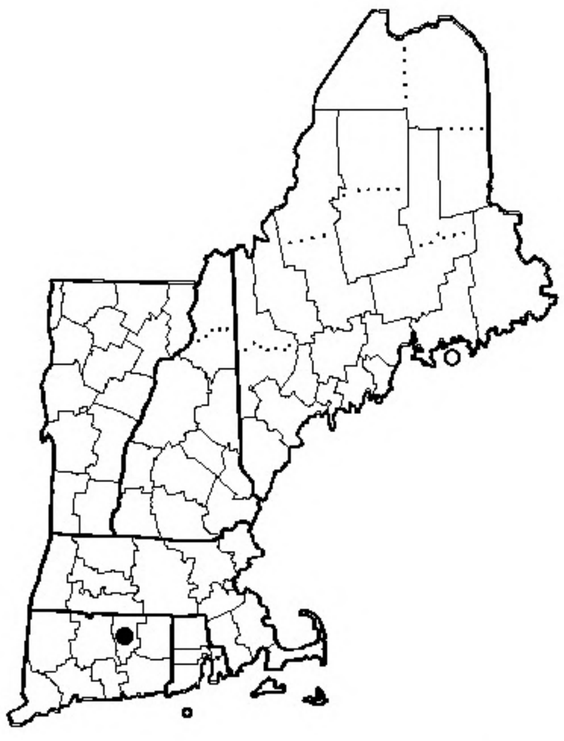


EUPATORIUM ALTISSIMUM

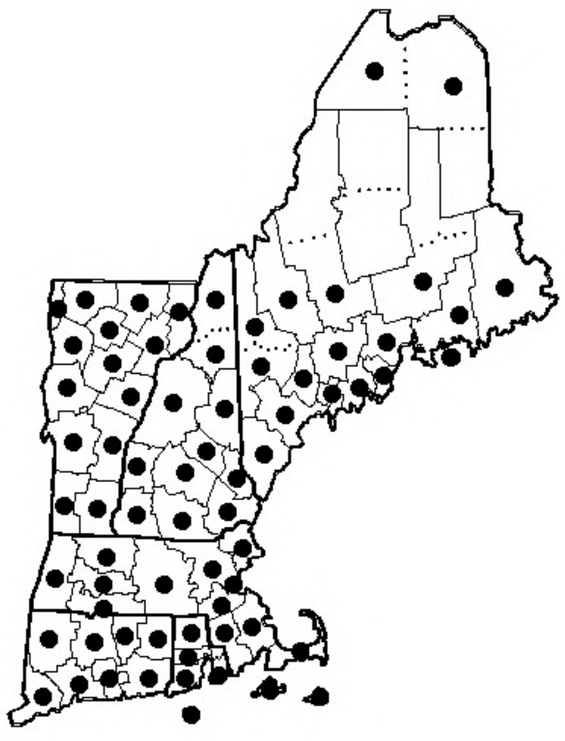


Eupatorium hyssopifolium
var. *hyssopifolium*

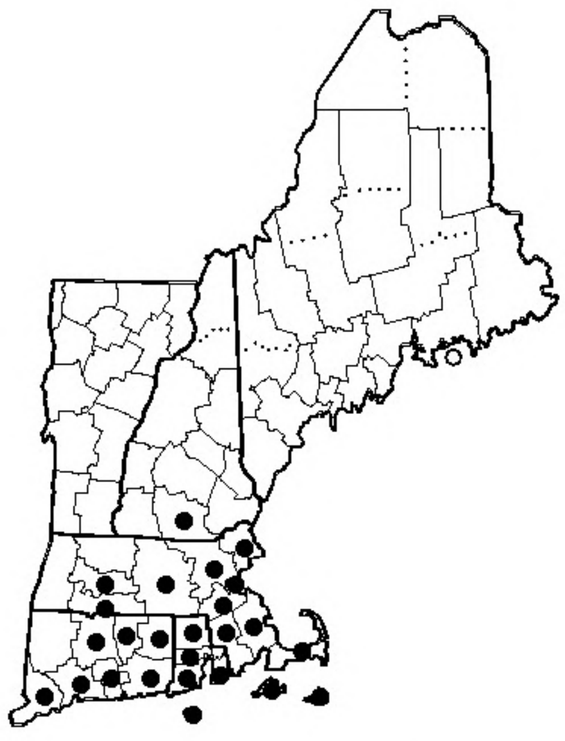
Figure 18. Distribution maps.



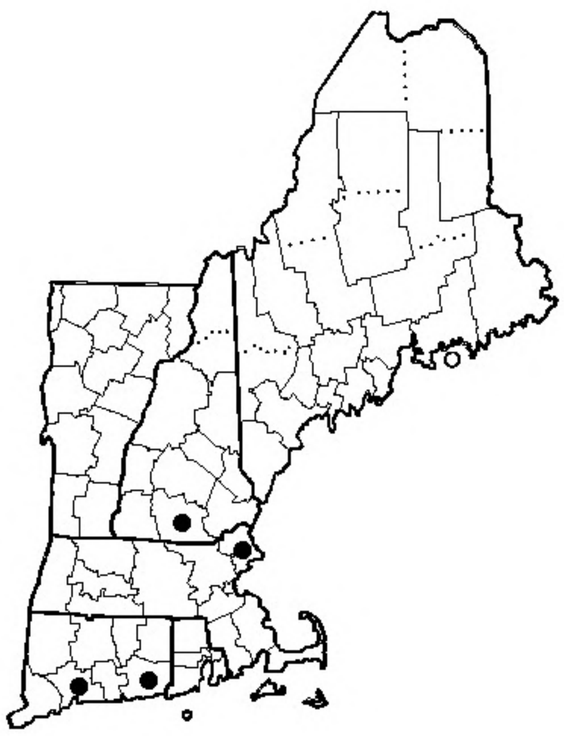
Eupatorium hyssopifolium
var. *laciniatum*



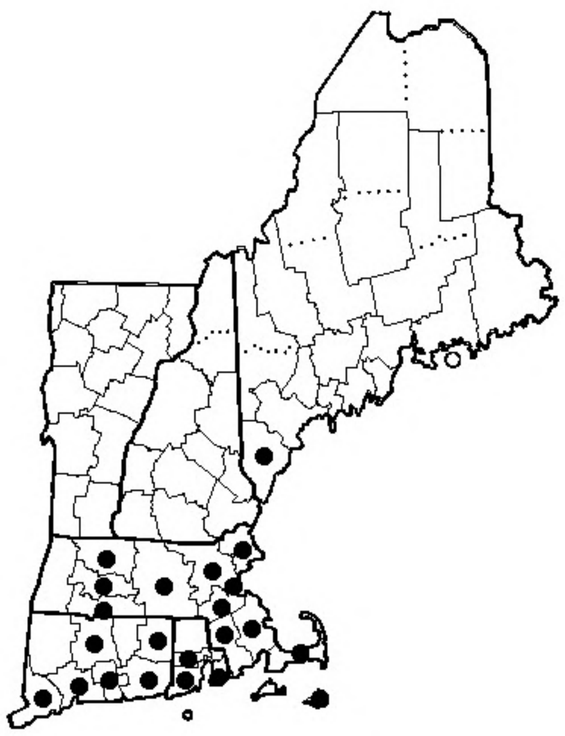
Eupatorium perfoliatum



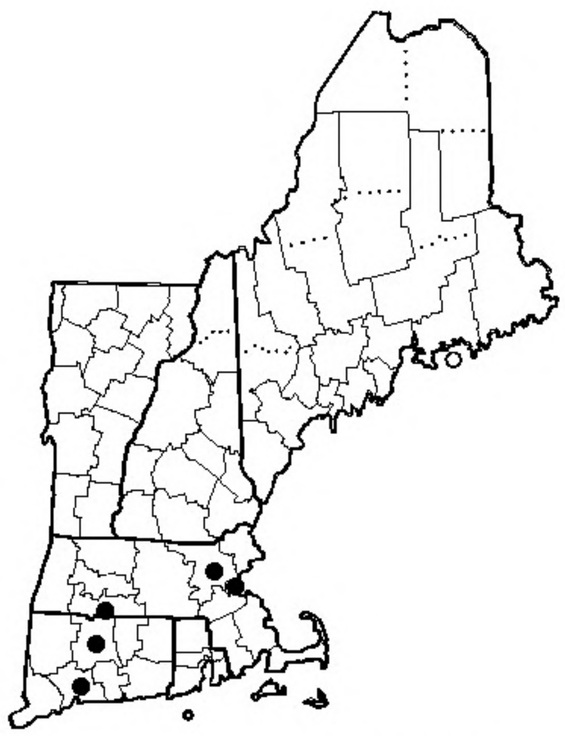
Eupatorium pilosum



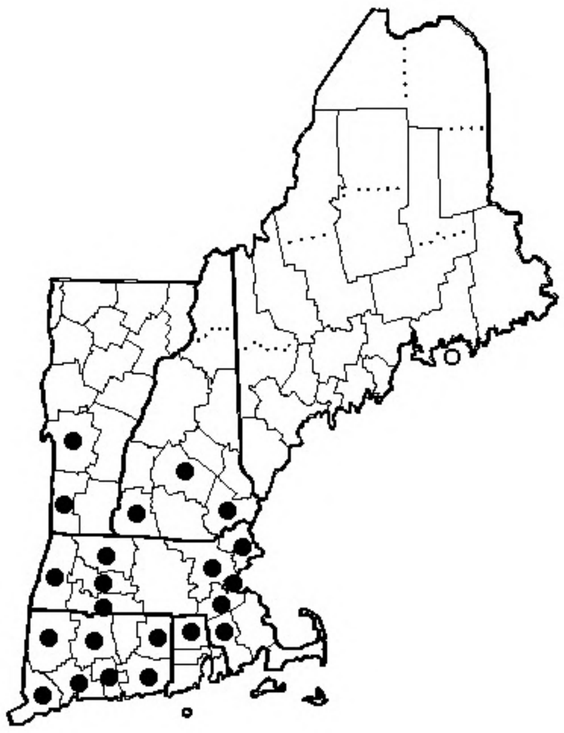
Eupatorium rotundifolium
var. *rotundifolium*



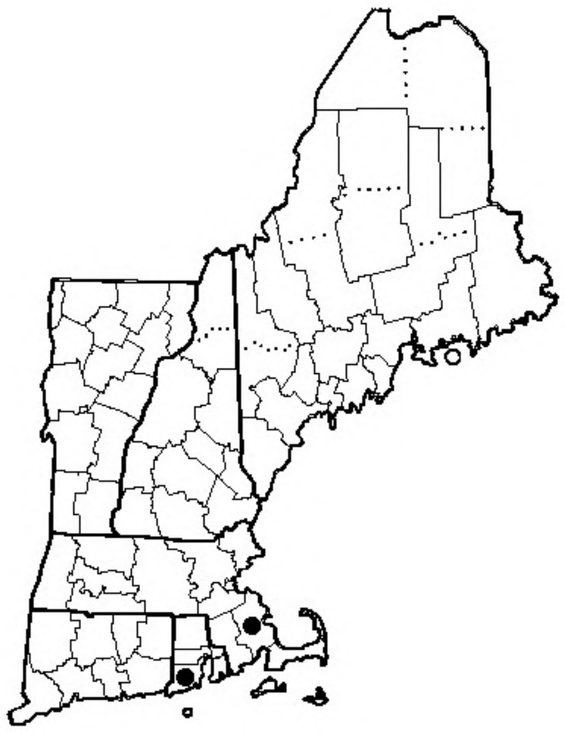
Eupatorium rotundifolium
var. *ovatum*



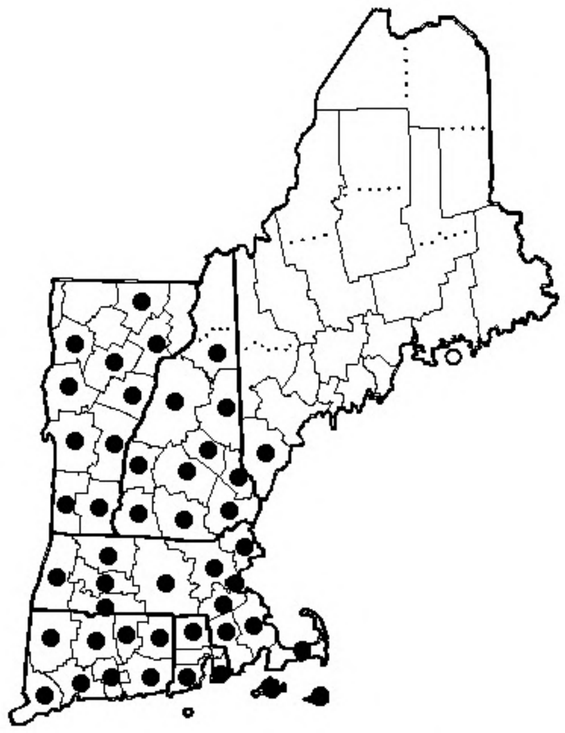
EUPATORIUM SEROTINUM



Eupatorium sessilifolium

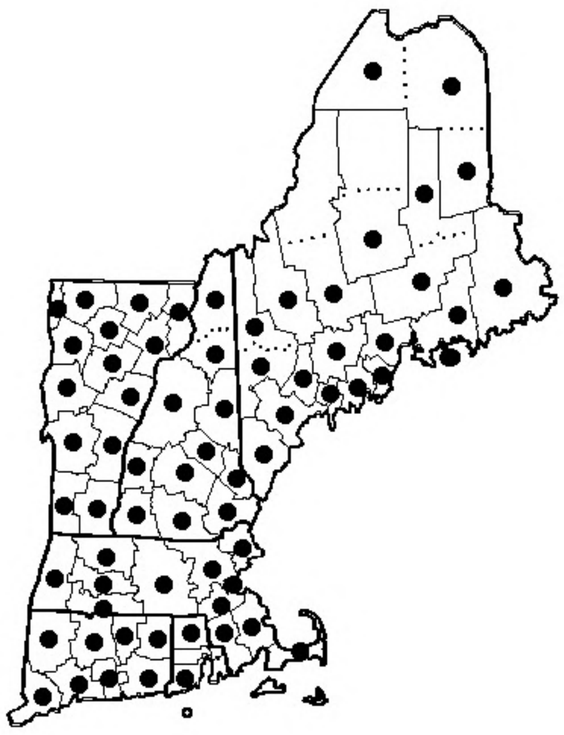


Eupatorium X *novae-angliae*

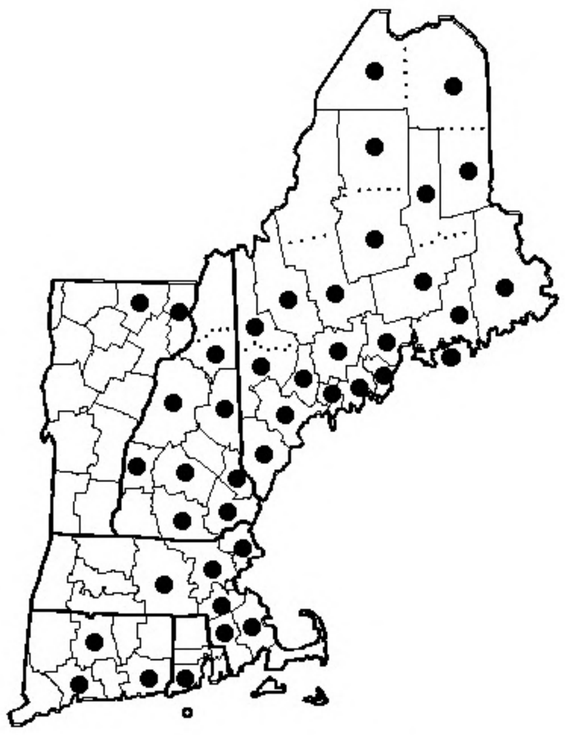


Eurybia divaricata

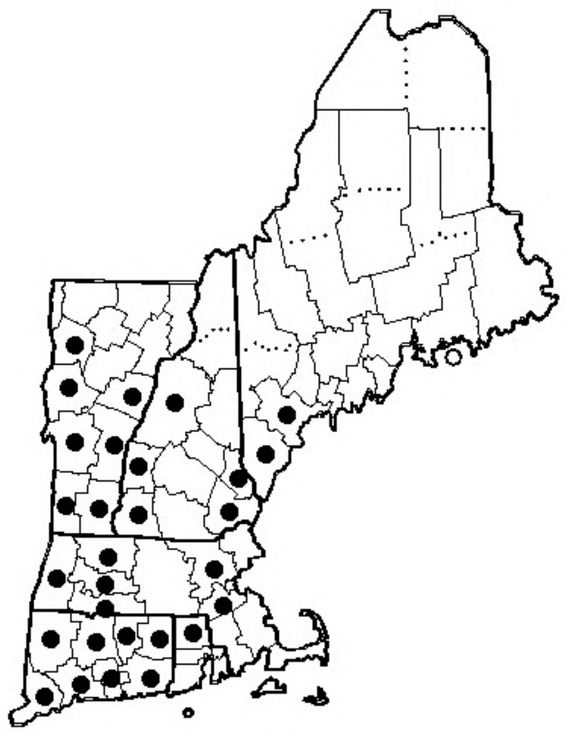
Figure 19. Distribution maps.



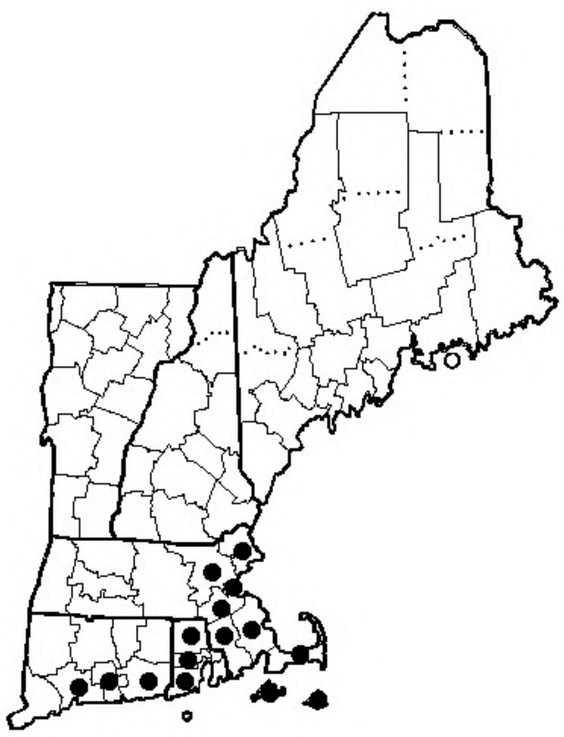
Eurybia macrophylla



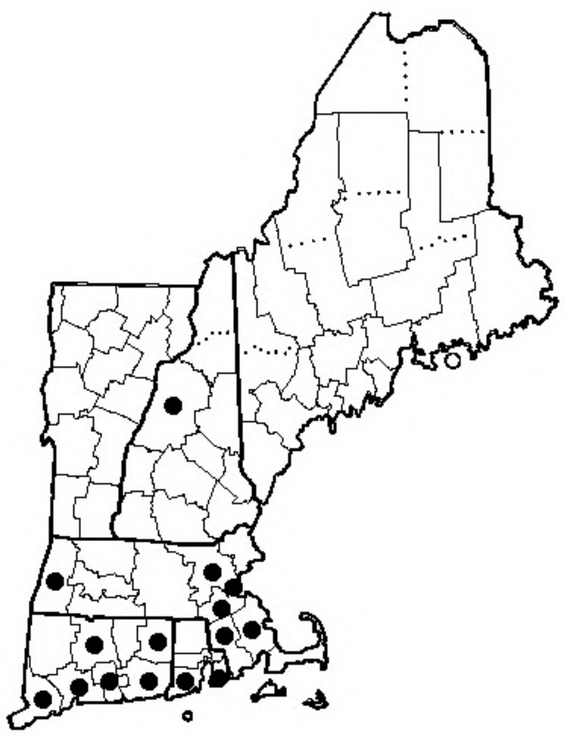
Eurybia radula



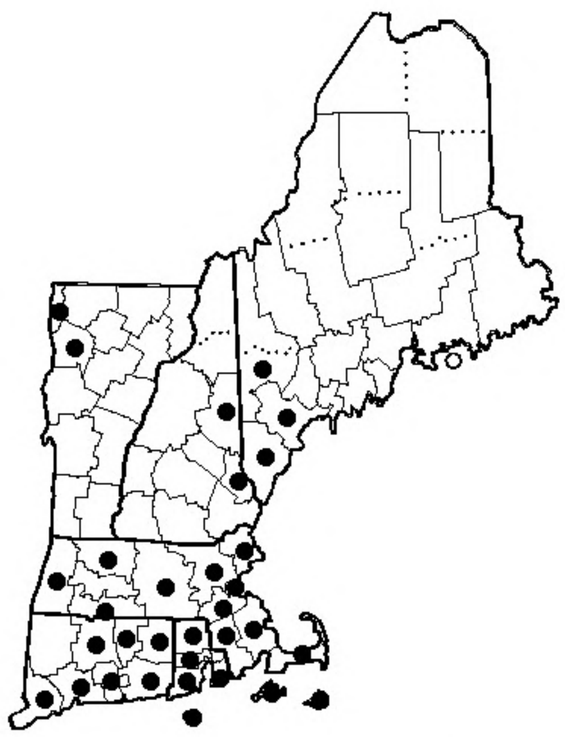
Eurybia schreberi



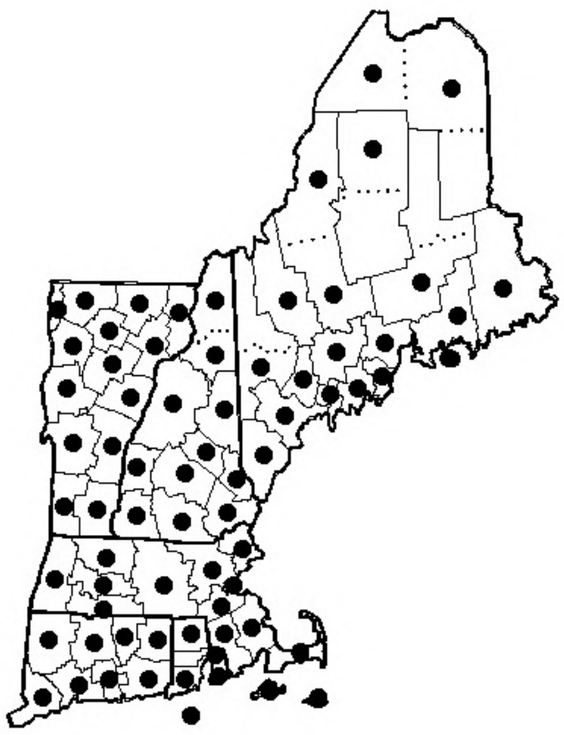
Eurybia spectabilis



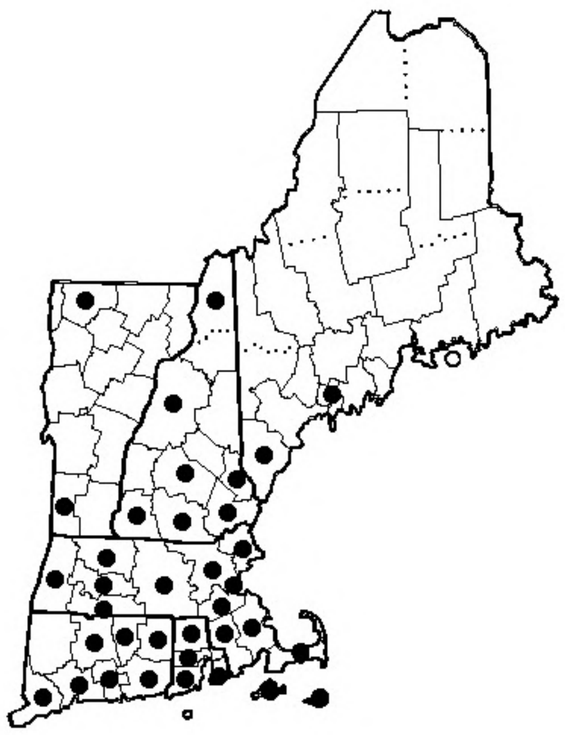
Eurybia X herveyi



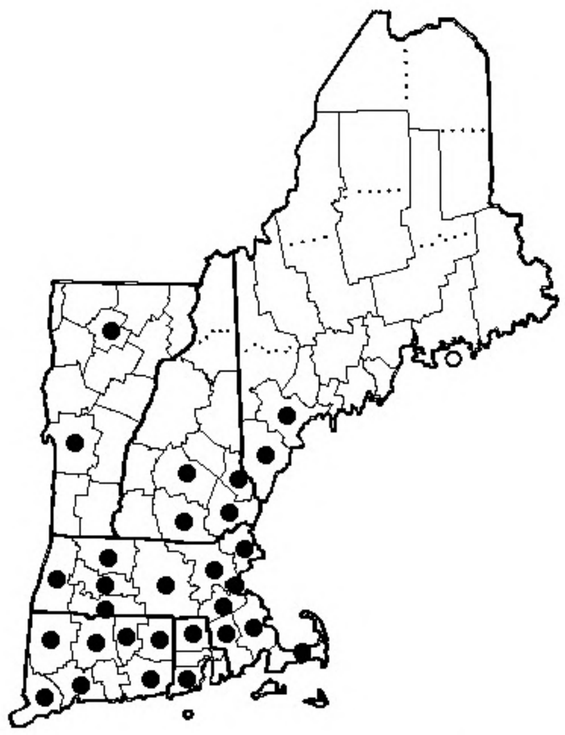
Euthamia caroliniana



Euthamia graminifolia

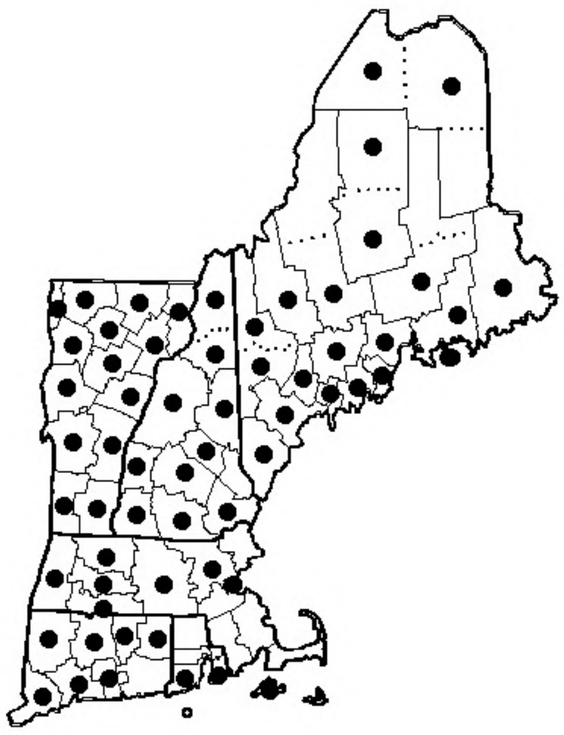


Eutrochium dubium

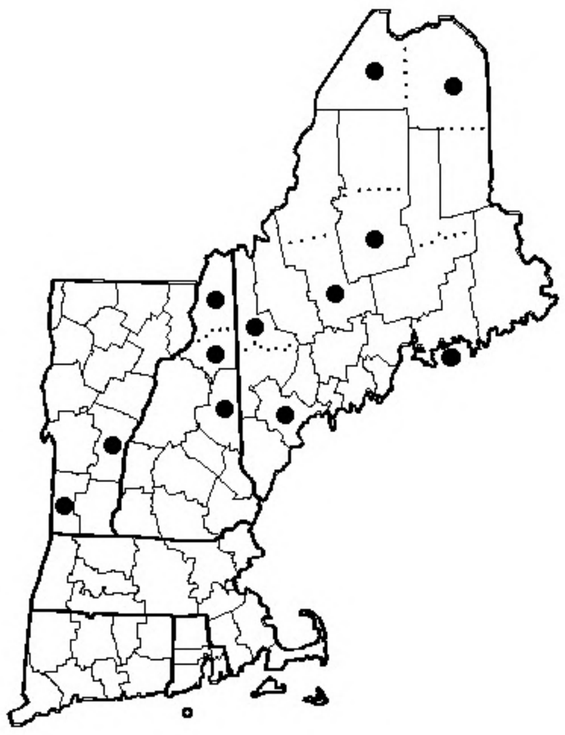


Eutrochium fistulosum

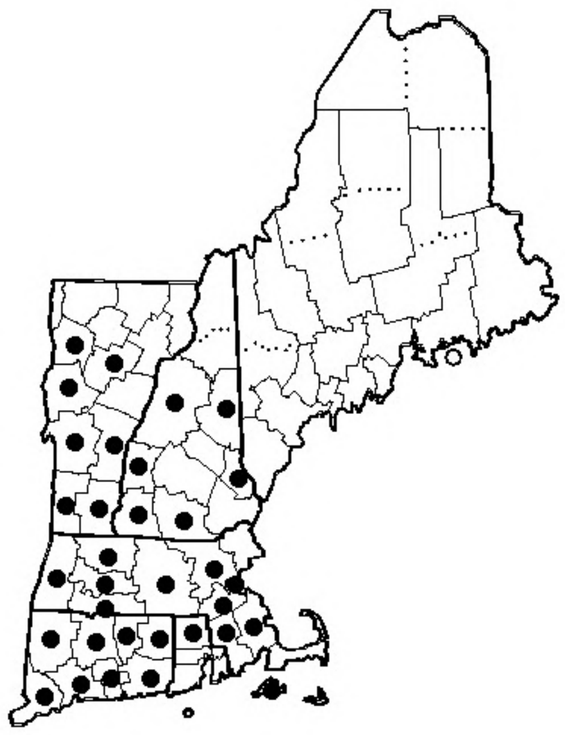
Figure 20. Distribution maps.



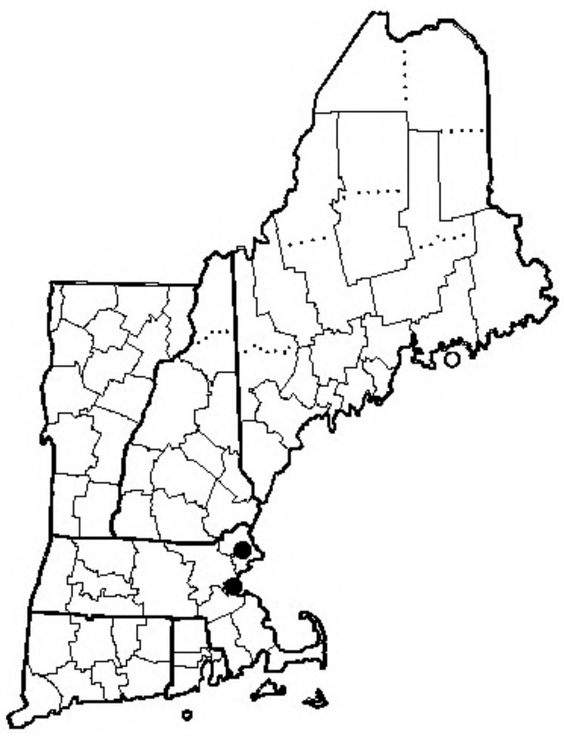
Eutrochium maculatum
var. *maculatum*



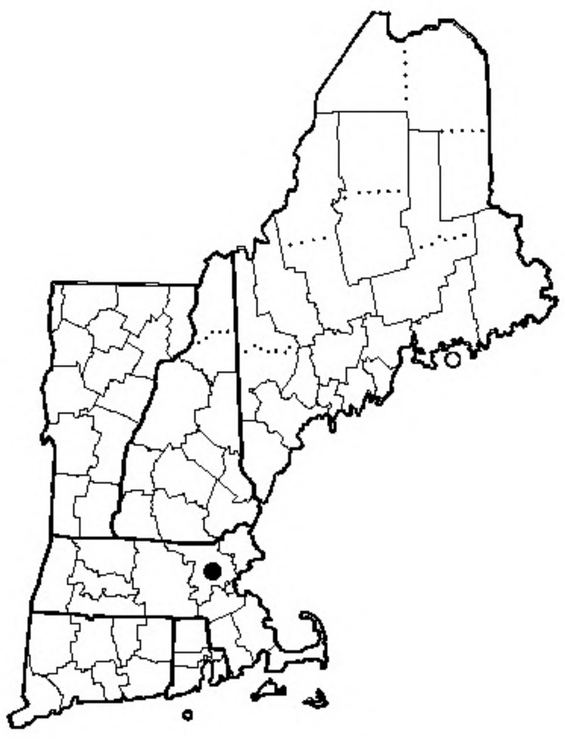
Eutrochium maculatum
var. *foliosum*



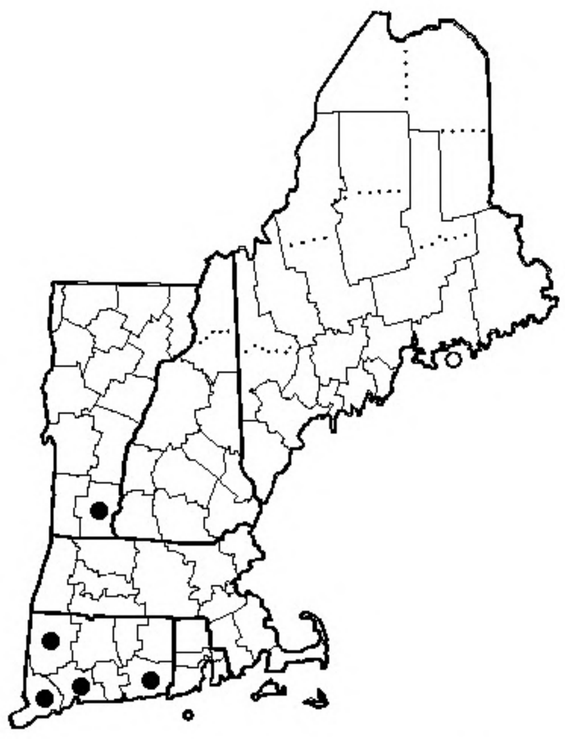
Eutrochium purpureum
var. *purpureum*



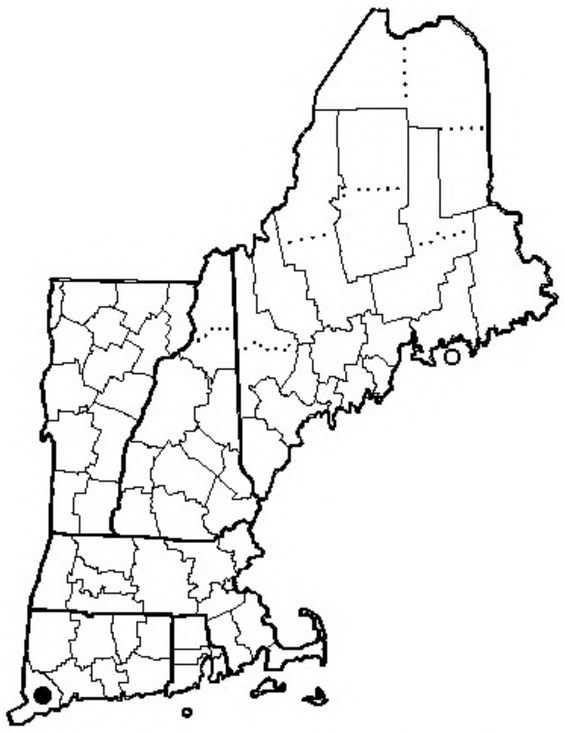
FILAGO VULGARIS



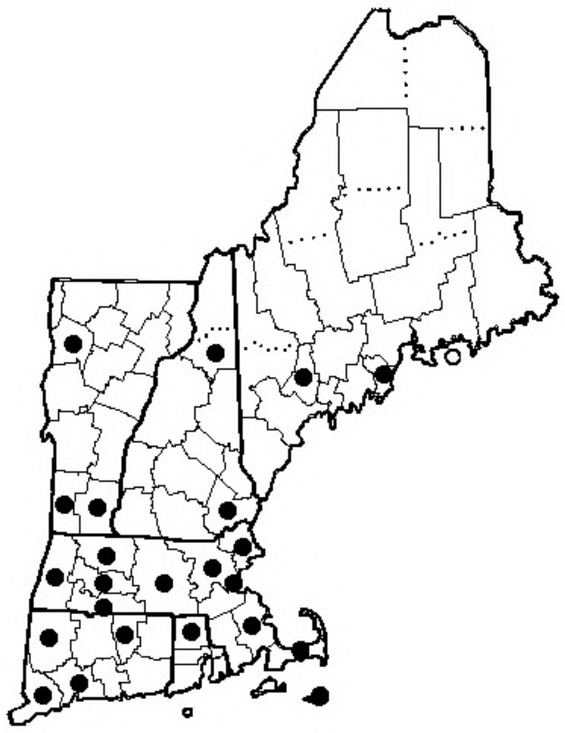
FLAVERIA BIDENTIS



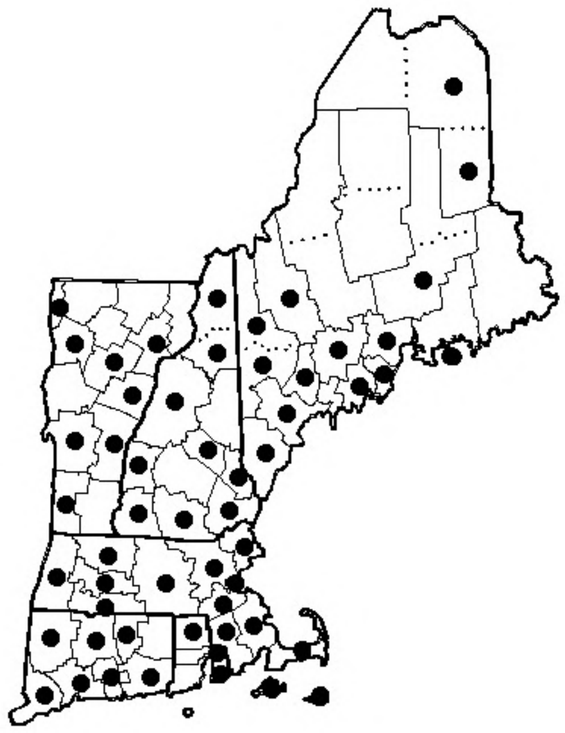
GAILLARDIA PULCHELLA



GAILLARDIA X *GRANDIFLORA*

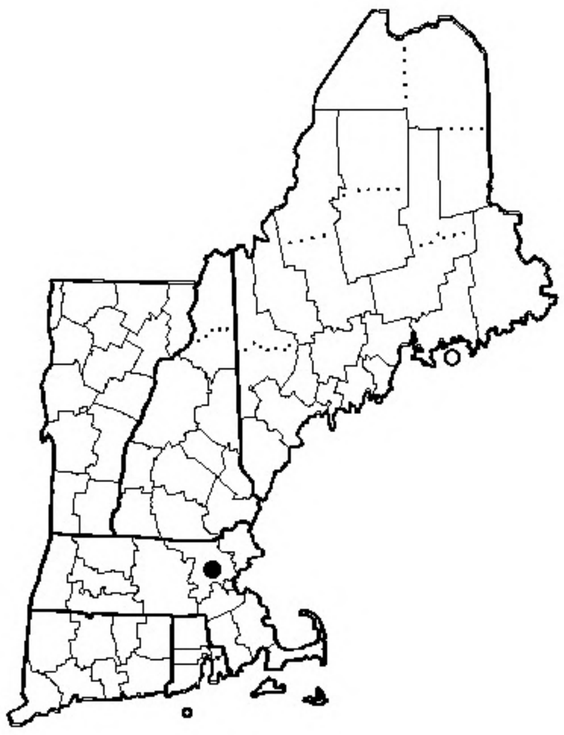


GALINSOGA PARVIFLORA
var. *PARVIFLORA*

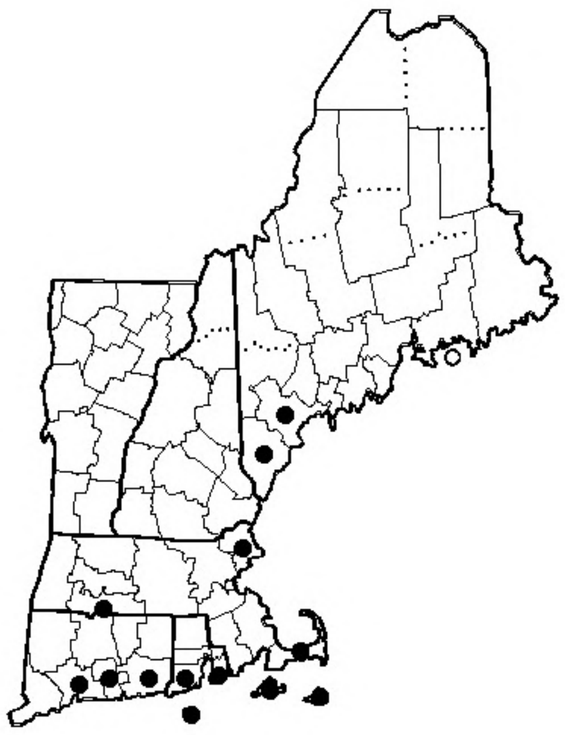


GALINSOGA QUADRIRADIATA

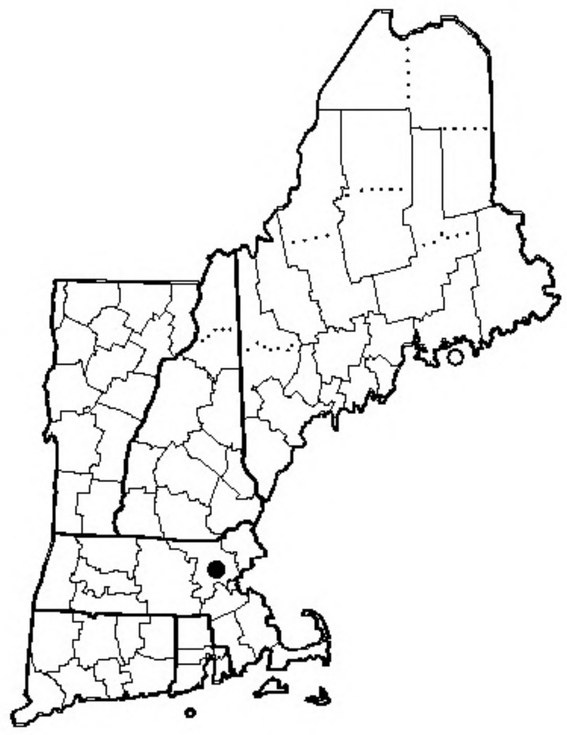
Figure 21. Distribution maps.



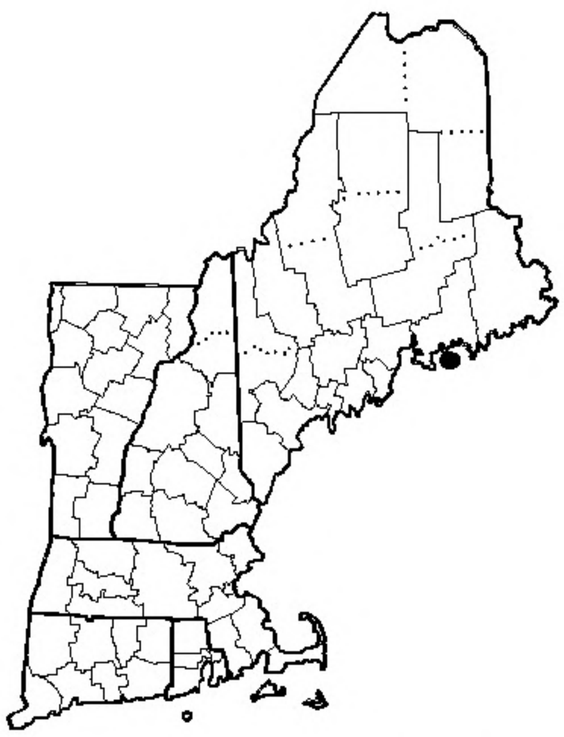
GAMOCHAETA PENSYLVANICA



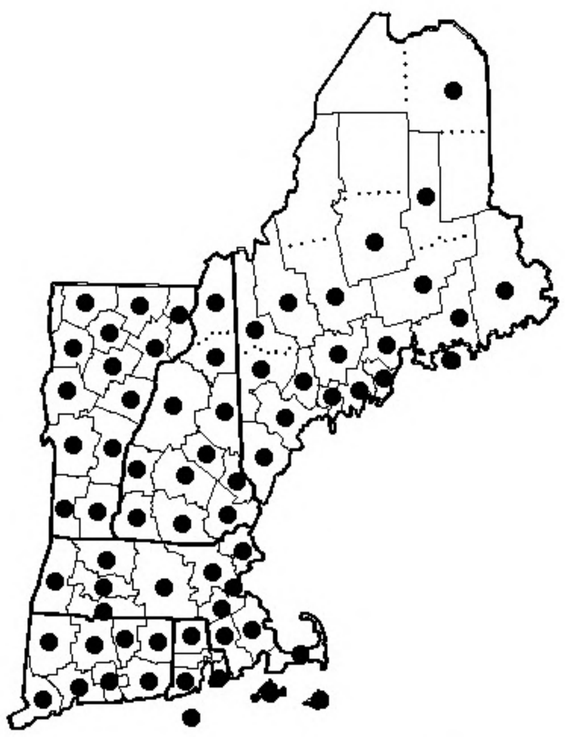
Gamochaeta purpurea



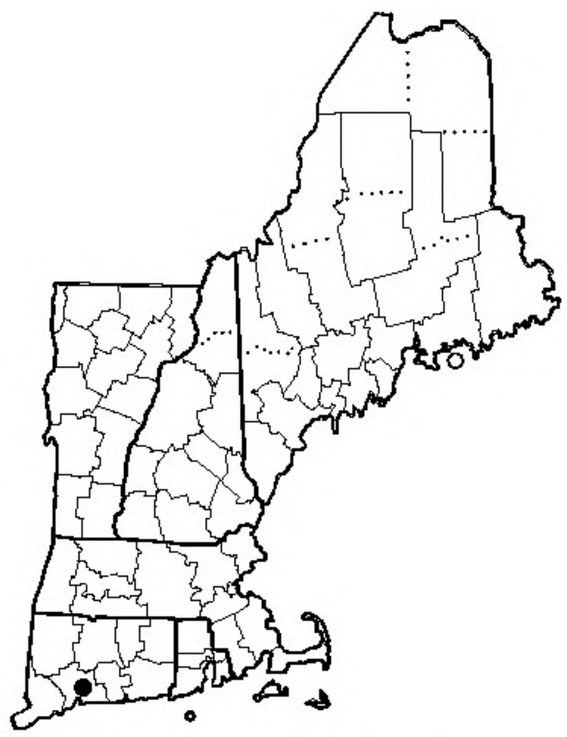
GLEBIONIS CORONARIA



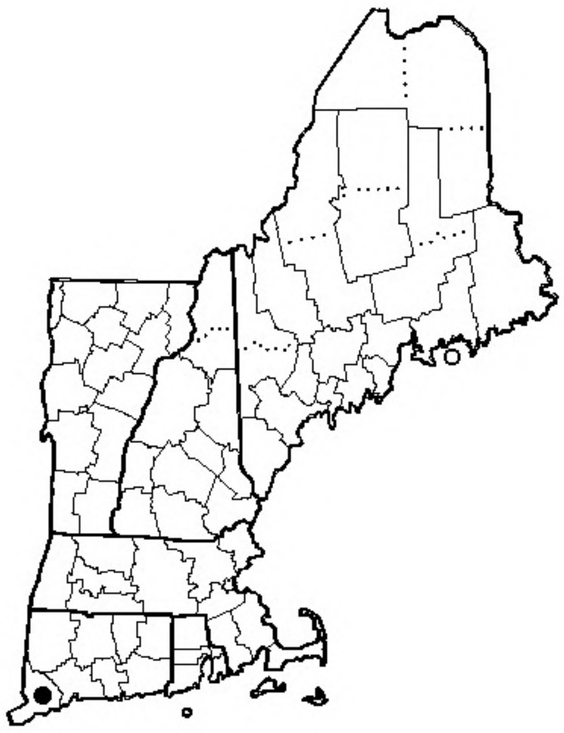
GLEBIONIS SEGETUM



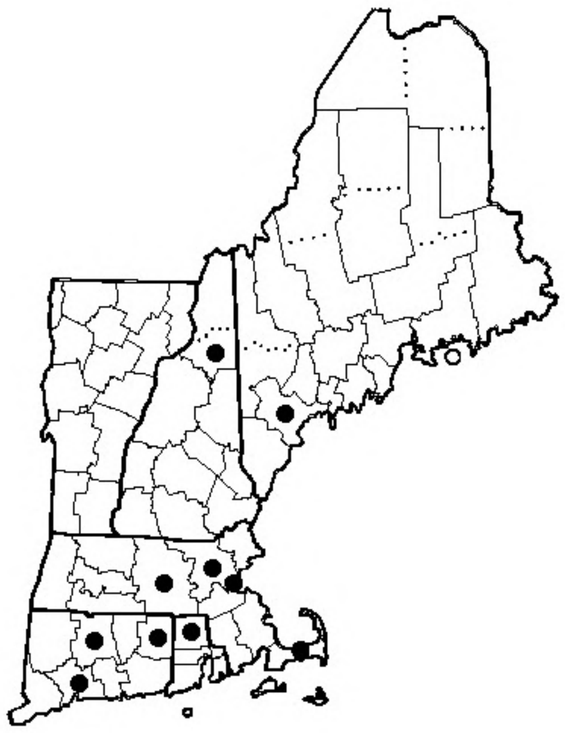
Gnaphalium uliginosum



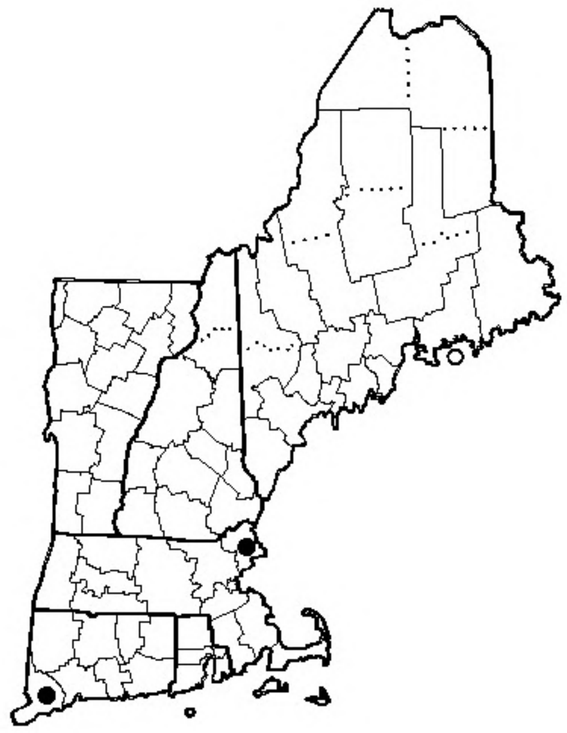
GRINDELIA HIRSUTULA



GRINDELIA LANCEOLATA

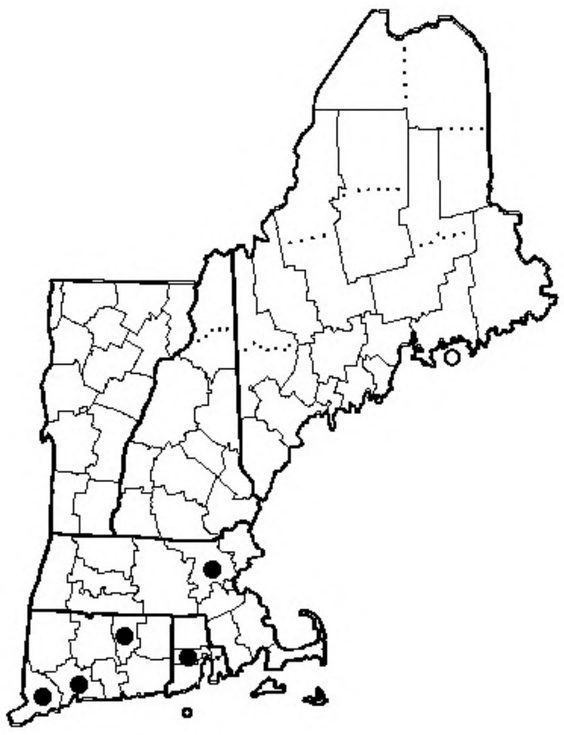


GRINDELIA SQUARROSA

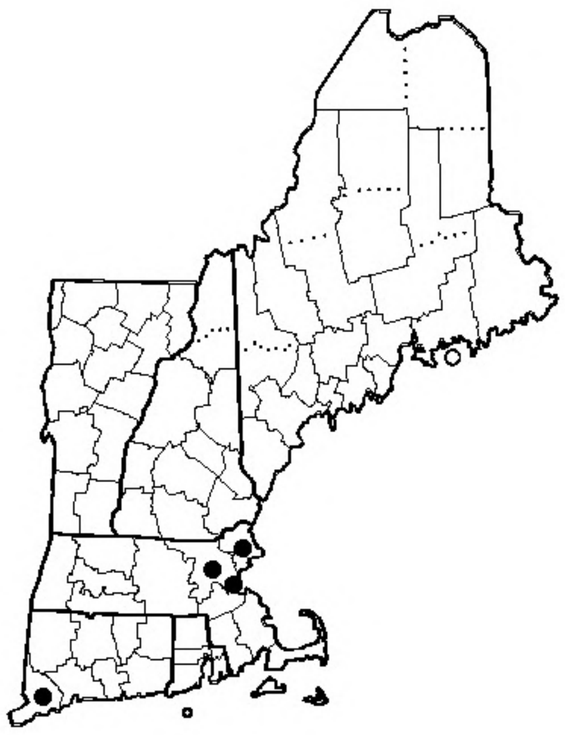


GUIZOTIA ABYSSINICA

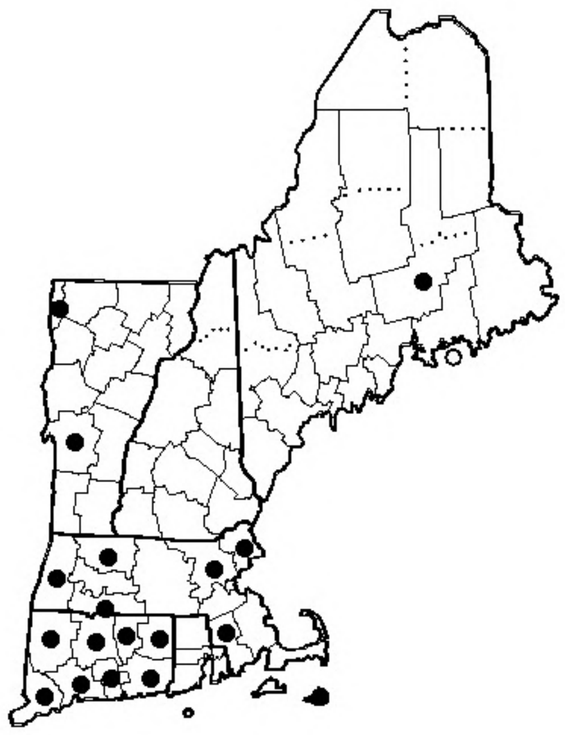
Figure 22. Distribution maps.



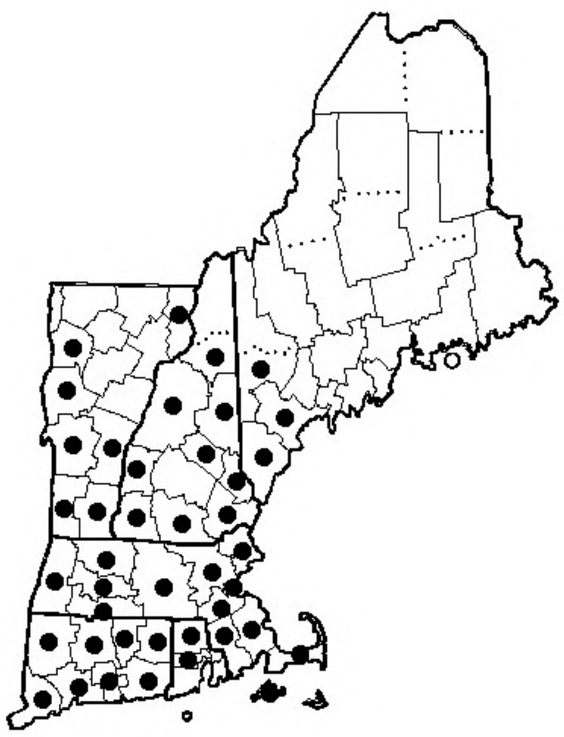
Hasteola suaveolens



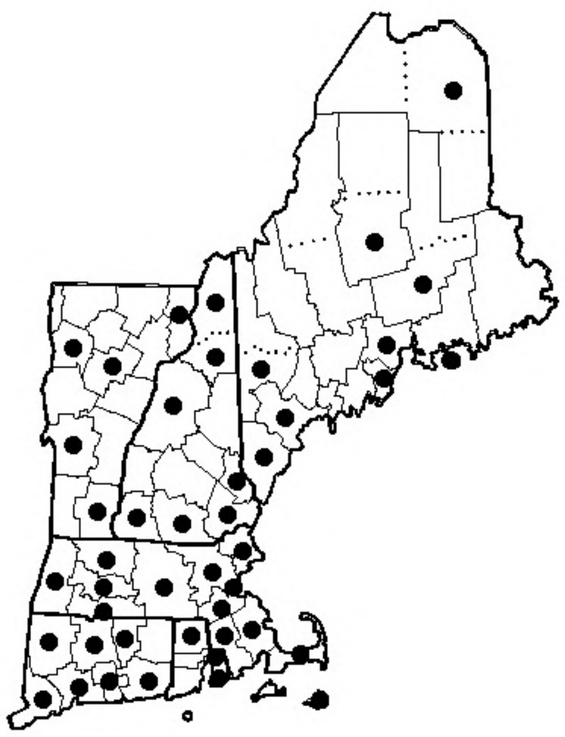
HELENIUM AMARUM
var. *AMARUM*



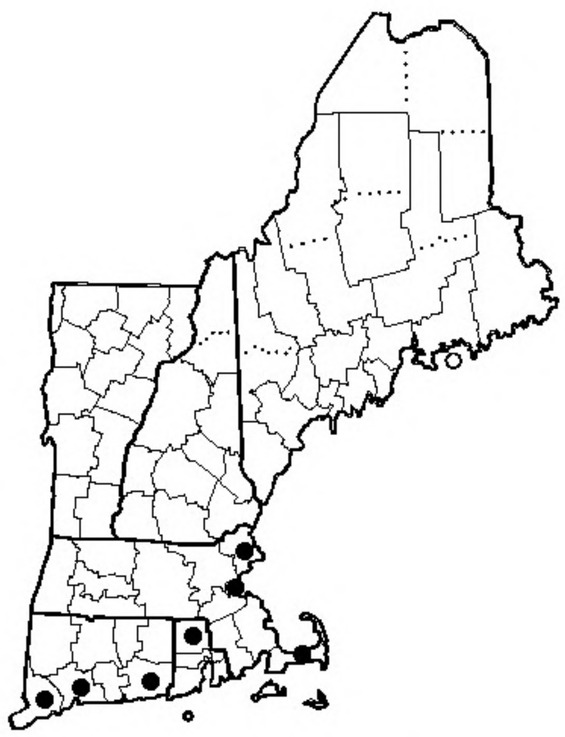
Helenium autumnale



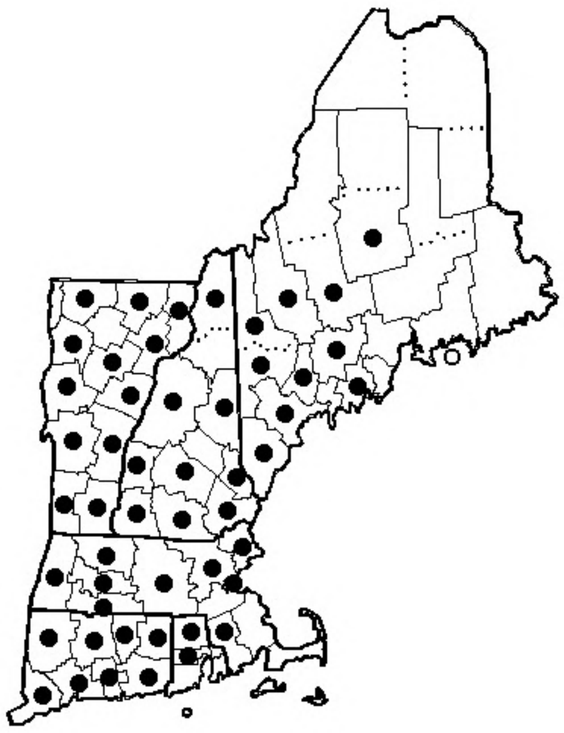
HELENIUM FLEXUOSUM



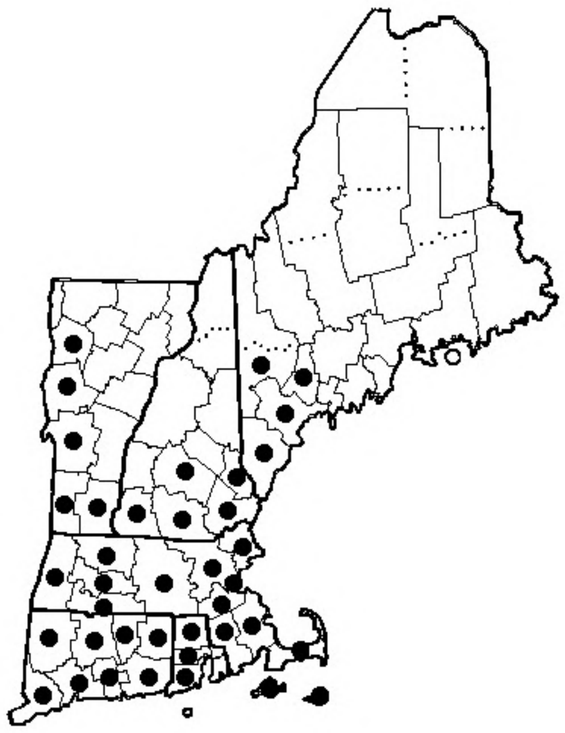
HELIANTHUS ANNUUS



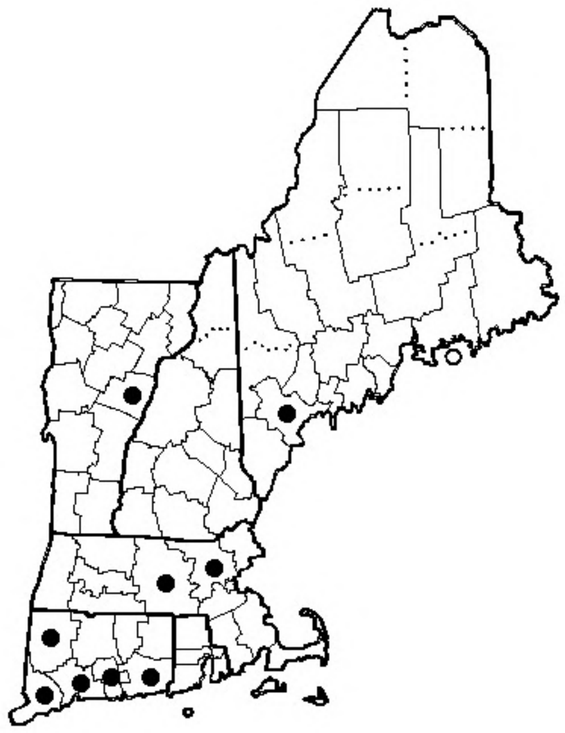
HELIANTHUS DEBILIS
subsp. *CUCUMERIFOLIUS*



Helianthus decapetalus

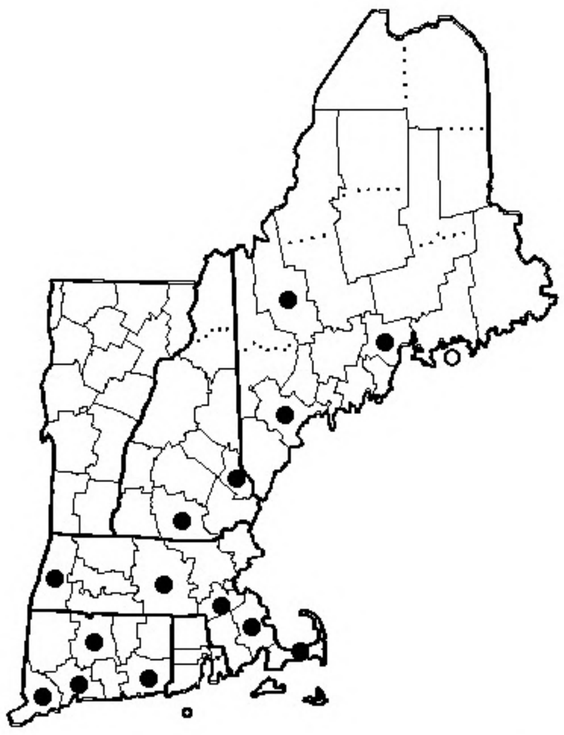


Helianthus divaricatus

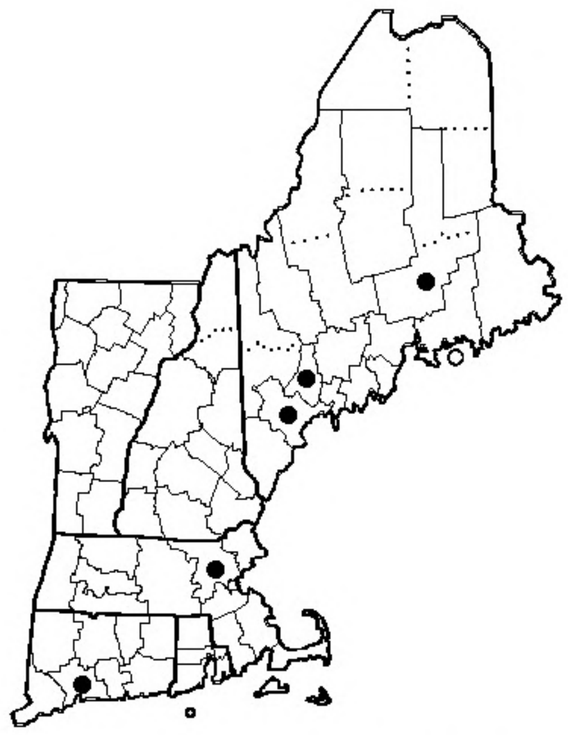


Helianthus giganteus

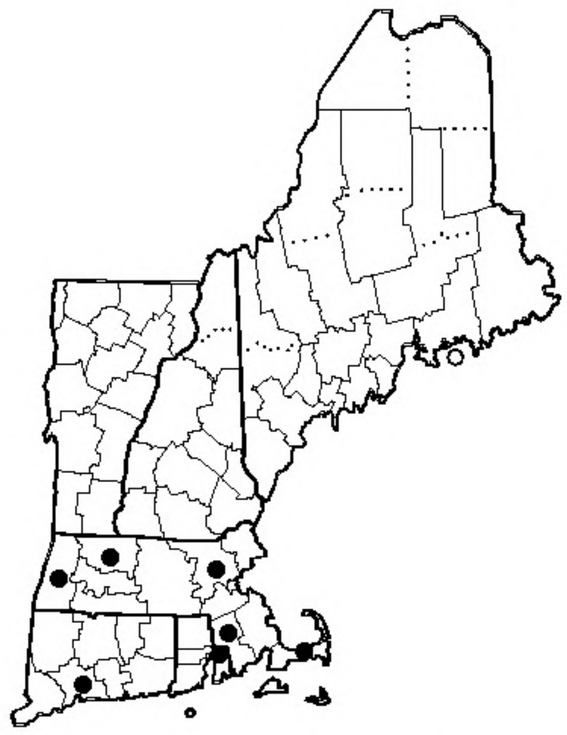
Figure 23. Distribution maps.



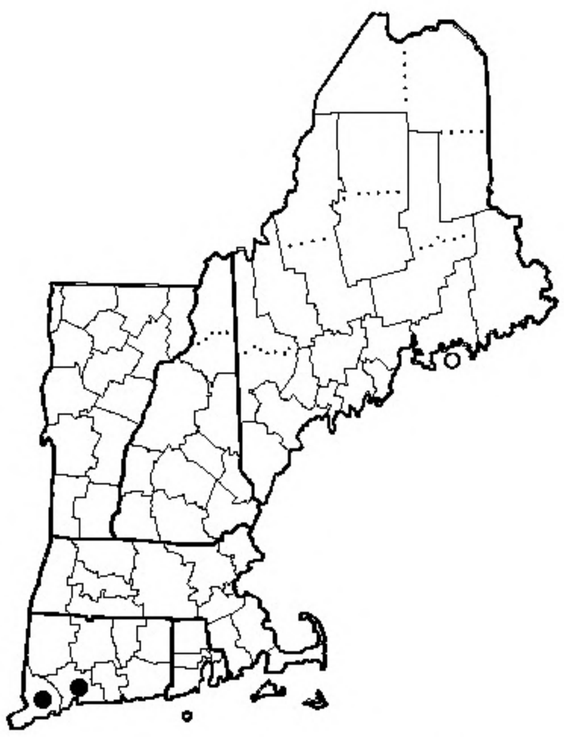
HELIANTHUS GROSSESERRATUS



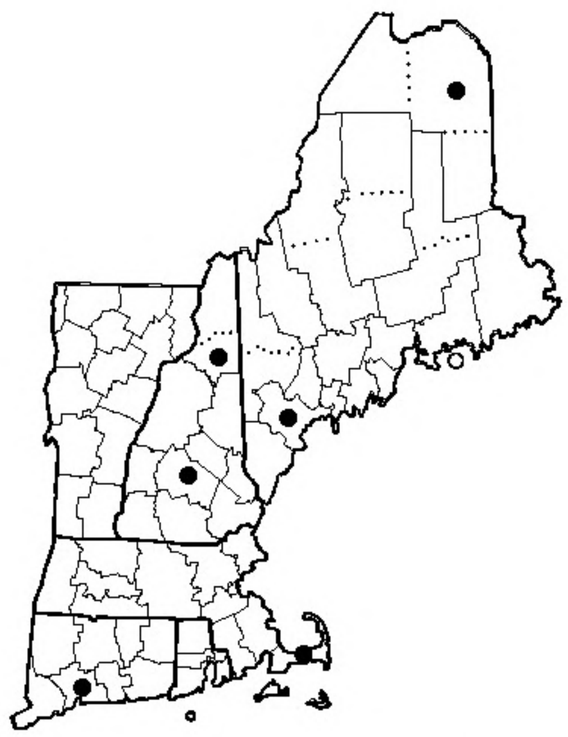
HELIANTHUS MAXIMILIANI



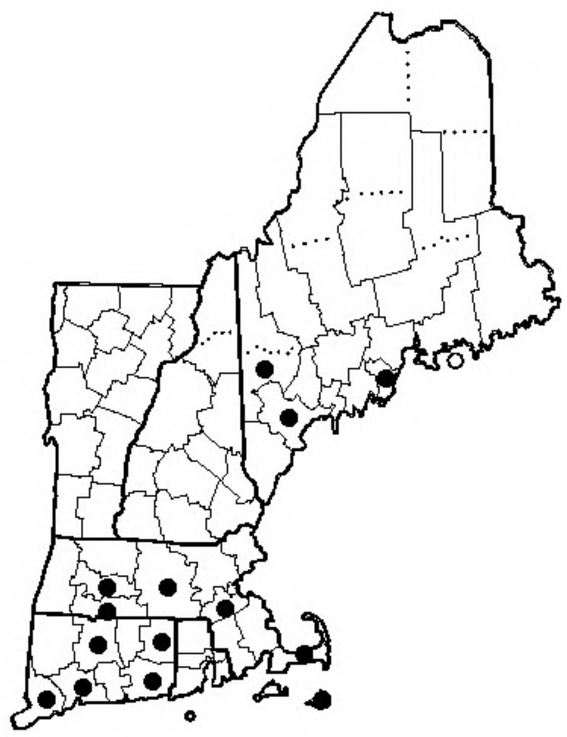
HELIANTHUS MOLLIS



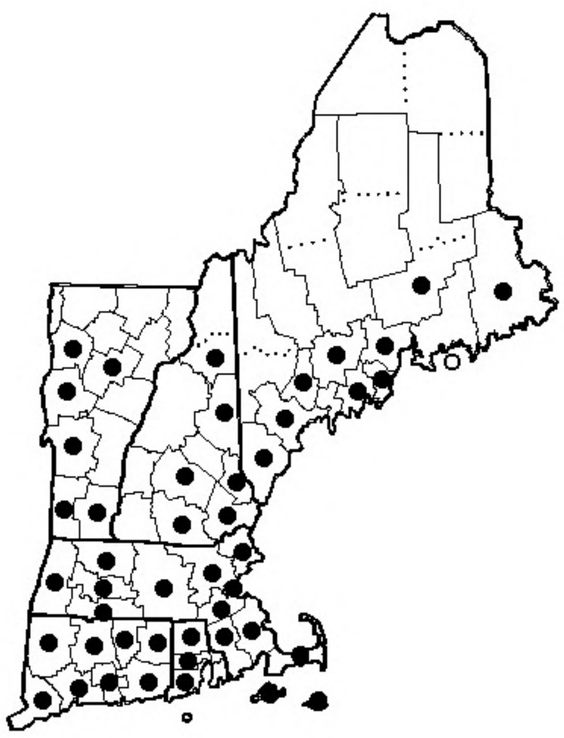
HELIANTHUS PAUCIFLORUS
subsp. *PAUCIFLORUS*



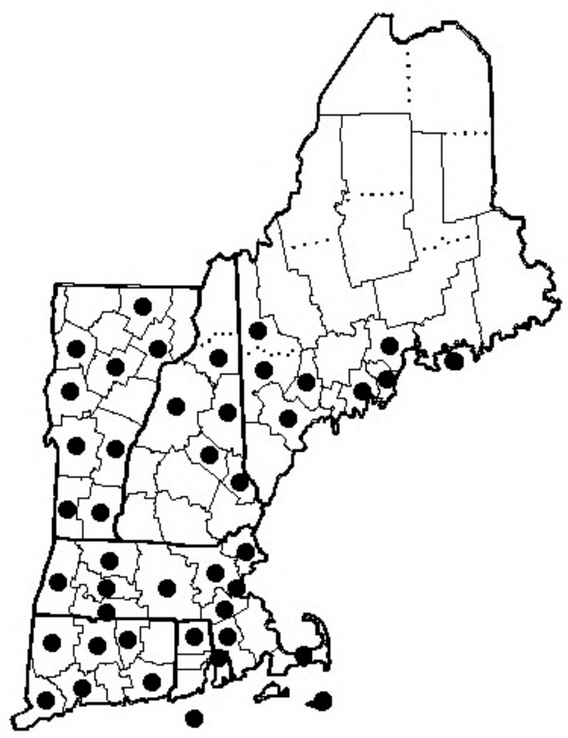
HELIANTHUS PAUCIFLORUS
subsp. *SUBRHOMBOIDEUS*



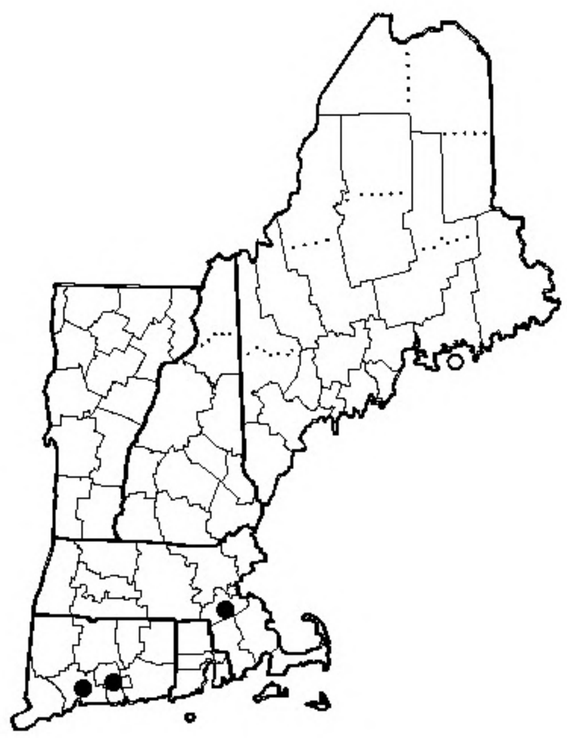
HELIANTHUS PETIOLARIS
subsp. *PETIOLARIS*



Helianthus strumosus

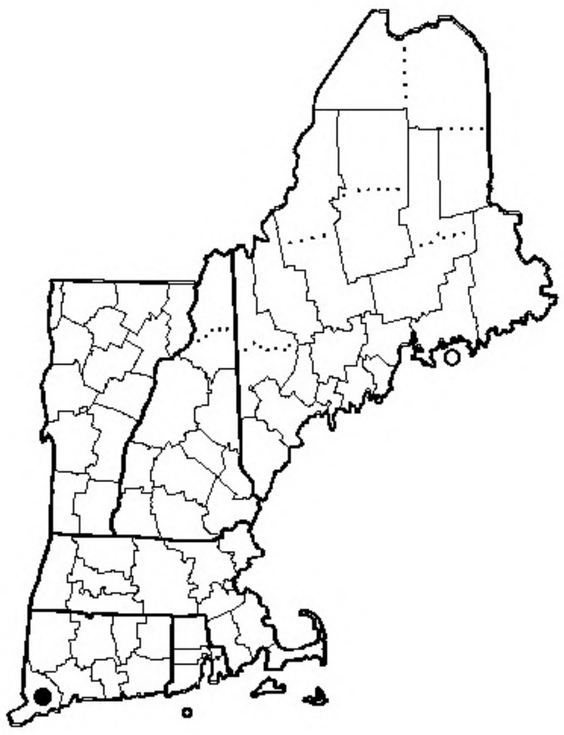


HELIANTHUS TUBEROSUS

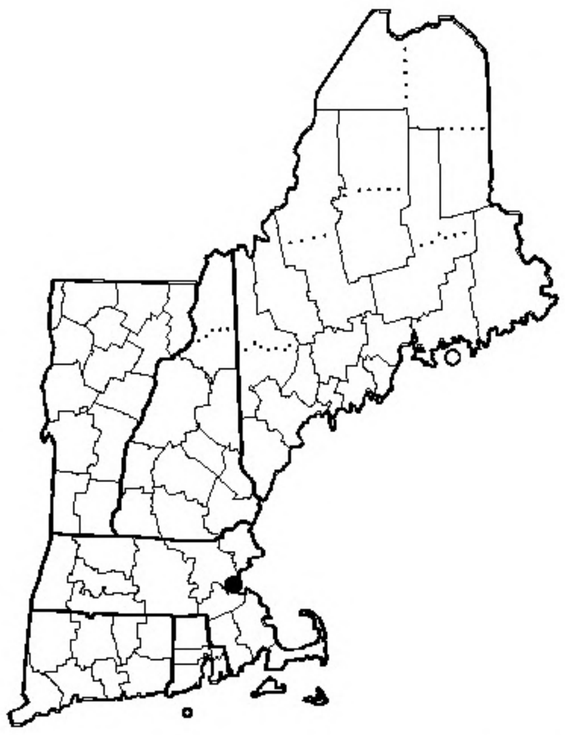


Helianthus X ambiguus

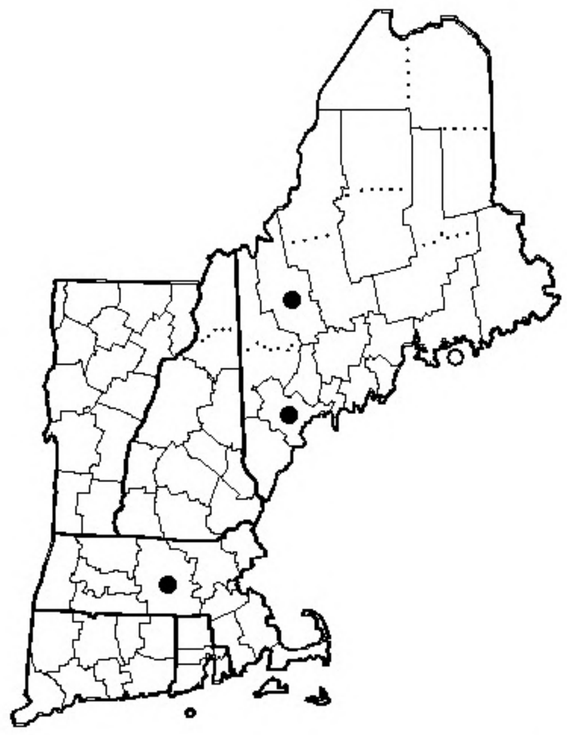
Figure 24. Distribution maps.



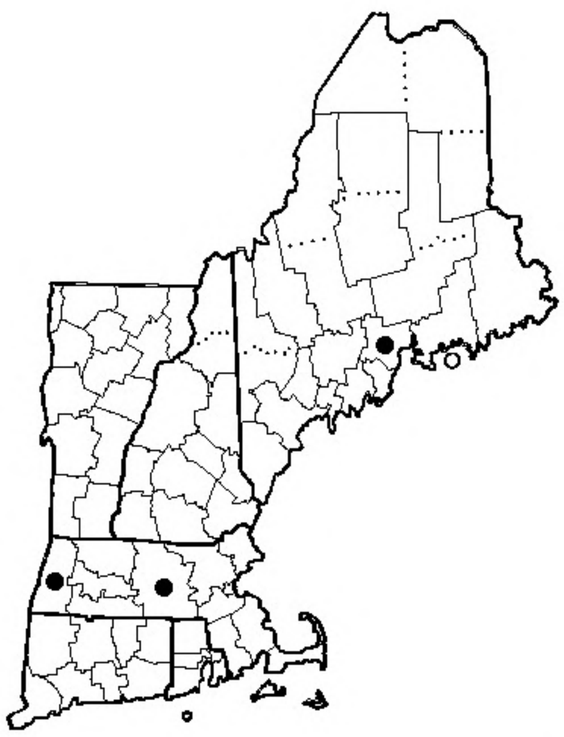
HELIANTHUS X DIVARISERRATUS



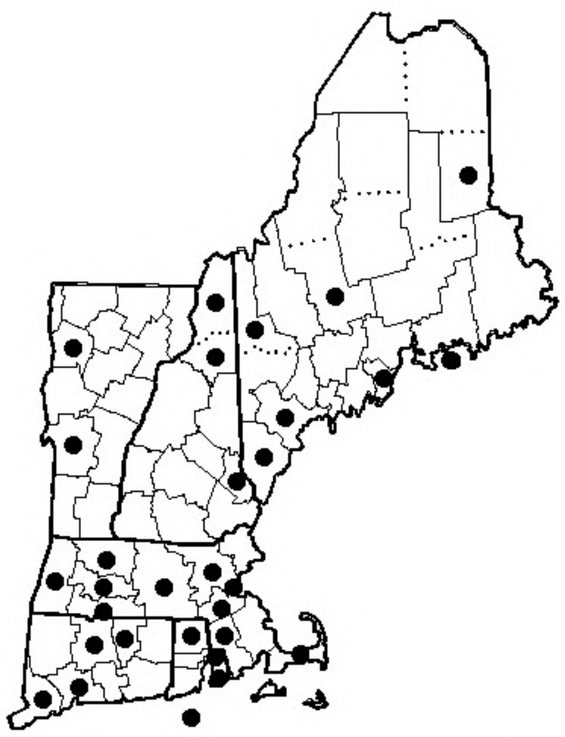
HELIANTHUS X DORONICOIDES



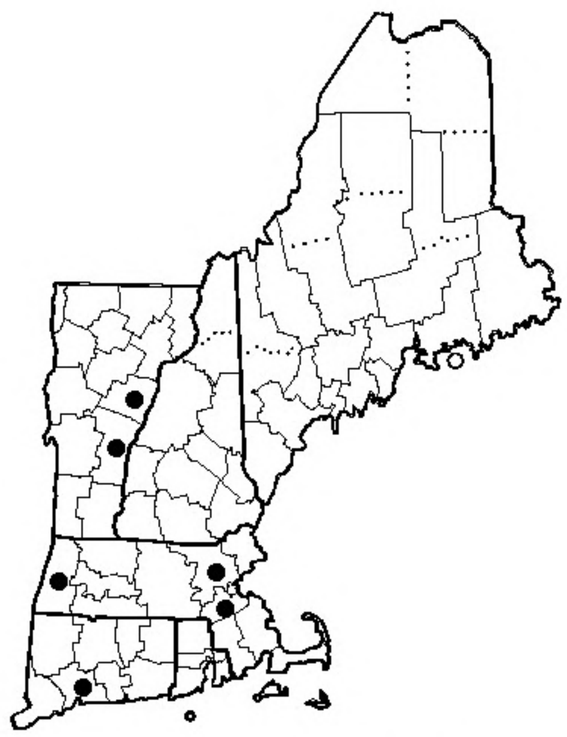
HELIANTHUS X INTERMEDIUS



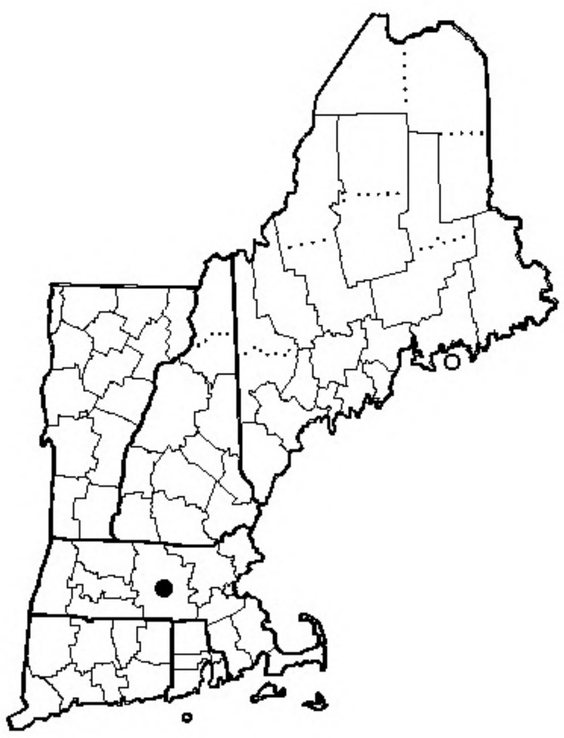
HELIANTHUS X KELLERMANNII



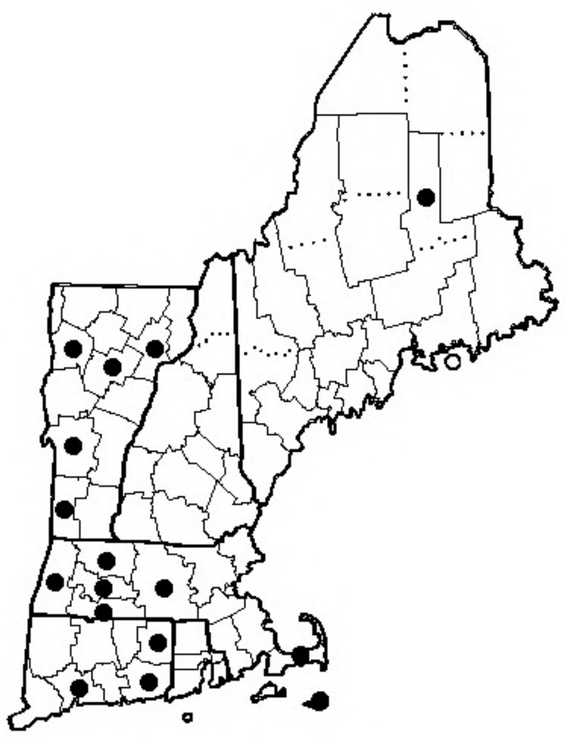
Helianthus X LAETIFLORUS



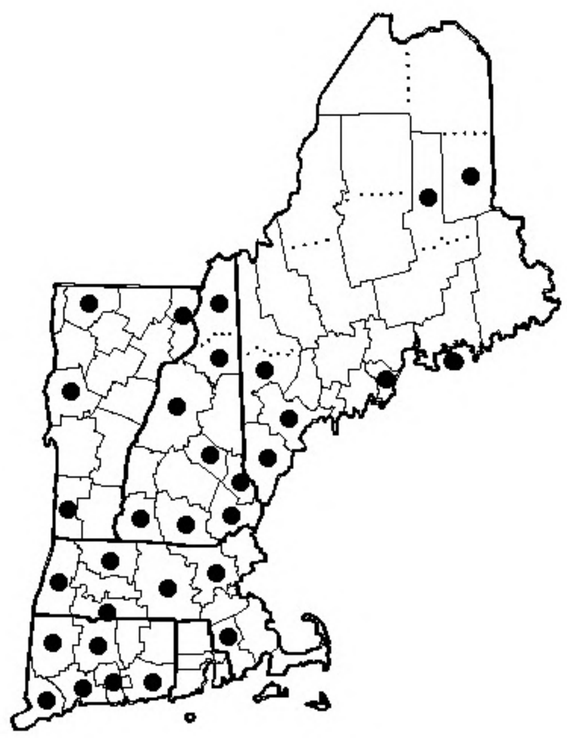
HELIANTHUS X LUXURIANS



HELIOMERIS MULTIFLORA
var. *MULTIFLORA*

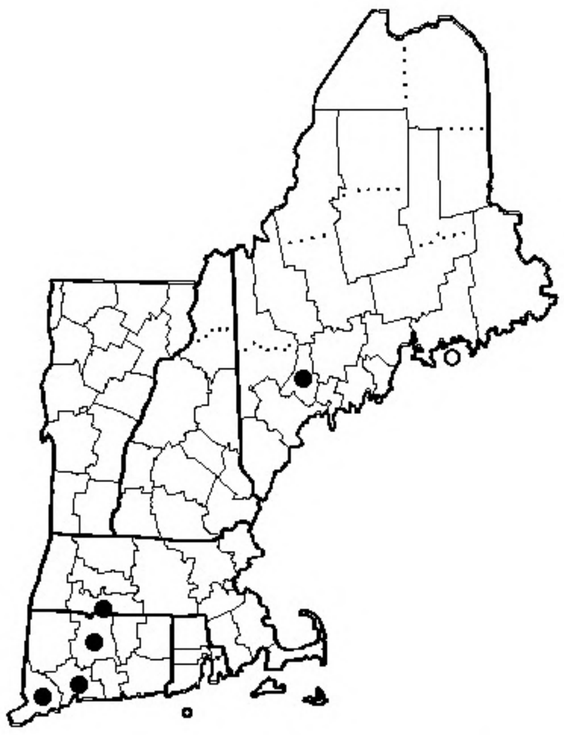


HELIOPSIS HELIANTHOIDES
var. *HELIANTHOIDES*

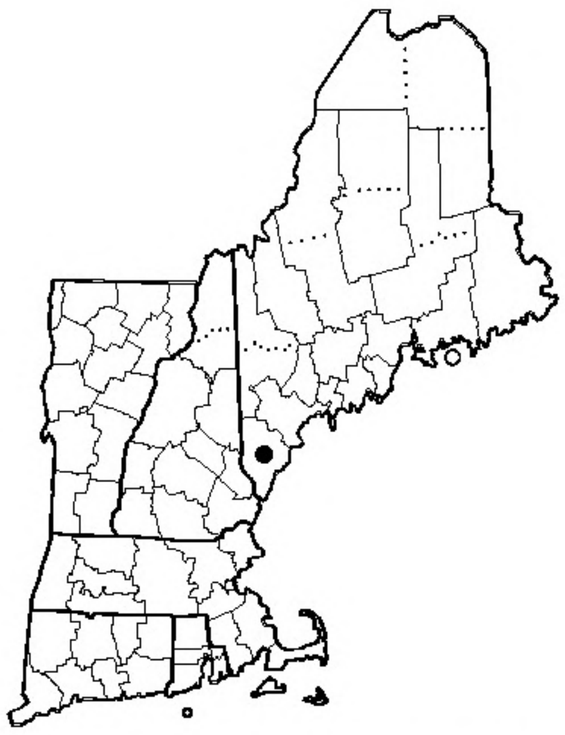


HELIOPSIS HELIANTHOIDES
var. *SCABRA*

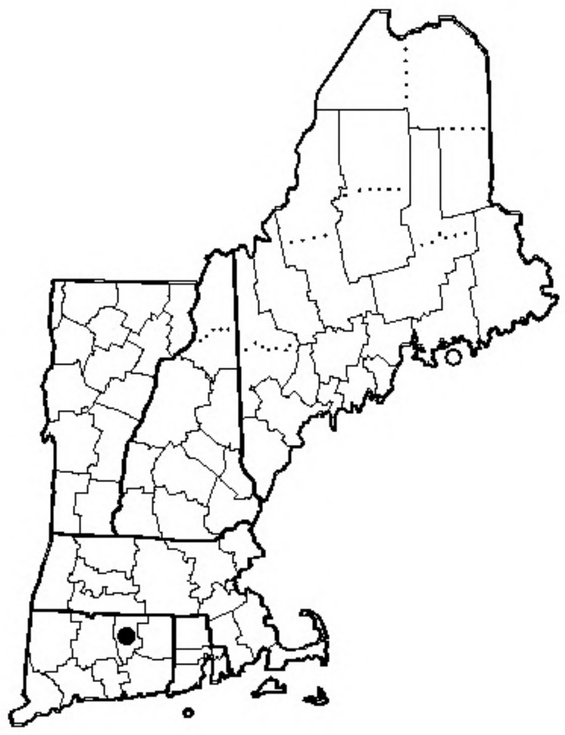
Figure 25. Distribution maps.



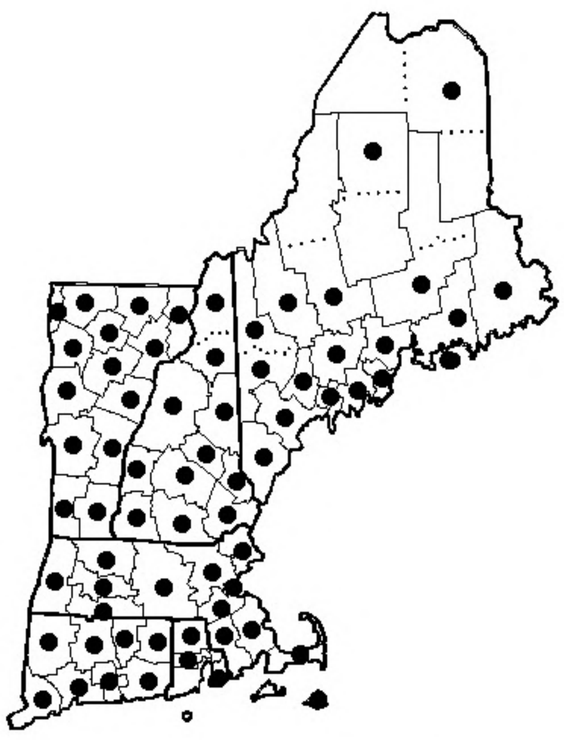
HELMINTHOTHECA ECHIOIDES



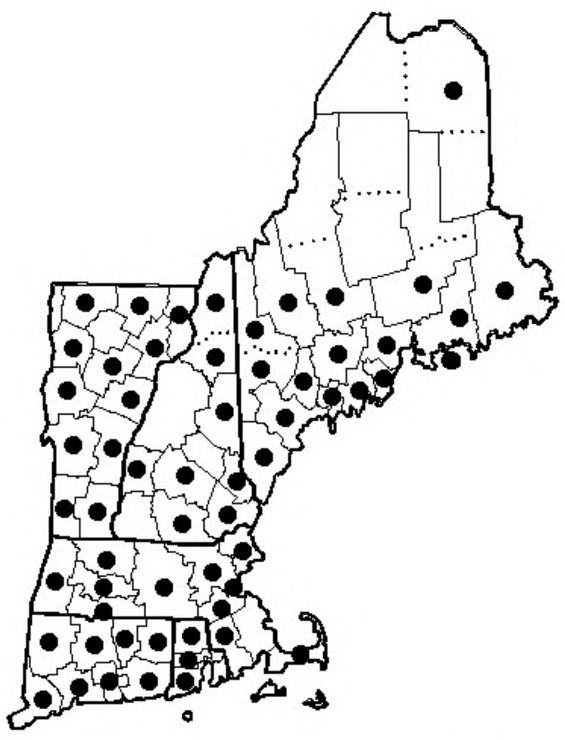
HETEROSPERMA PINNATUM



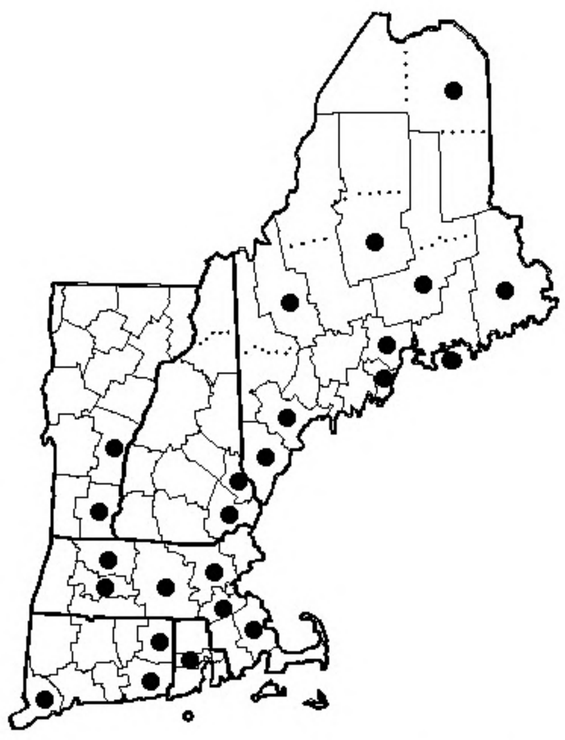
HETEROTHECA SUBAXILLARIS
subsp. *LATIFOLIA*



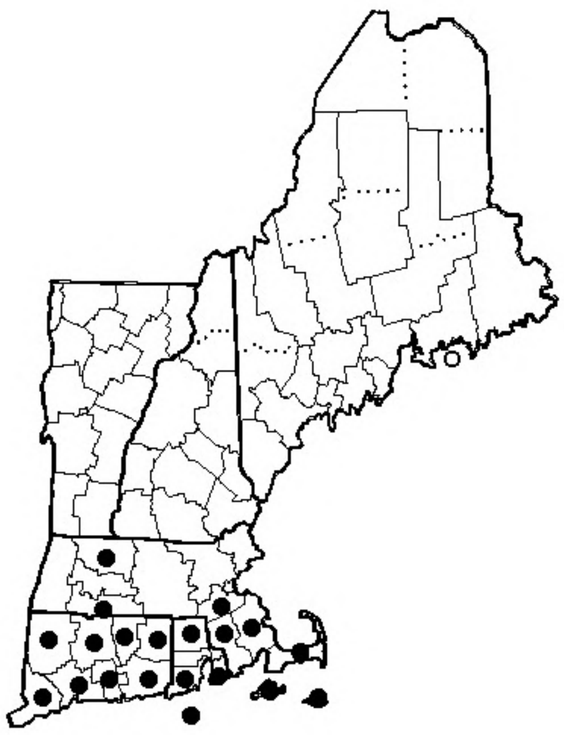
HIERACIUM AURANTIACUM



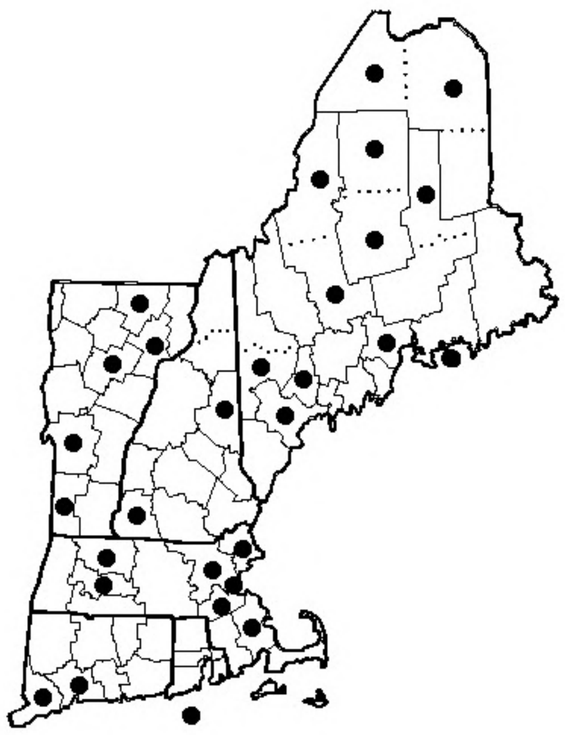
HIERACIUM CAESPITOSUM



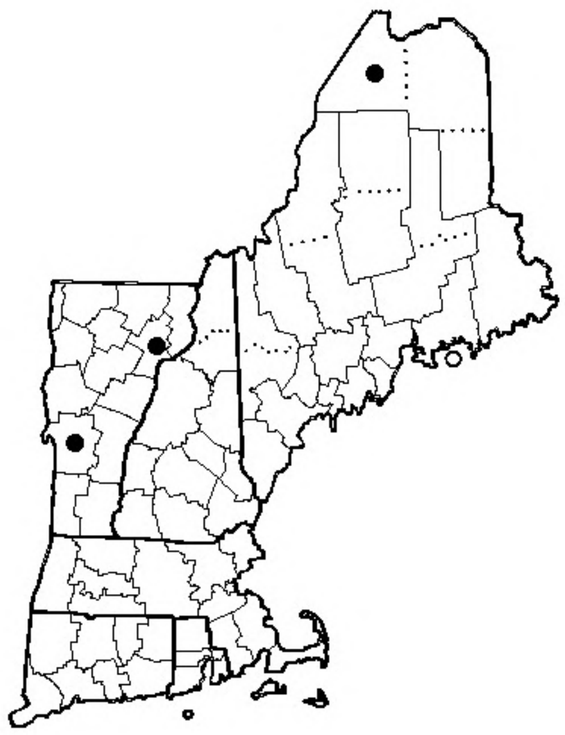
HIERACIUM FLAGELLARE



Hieracium gronovii

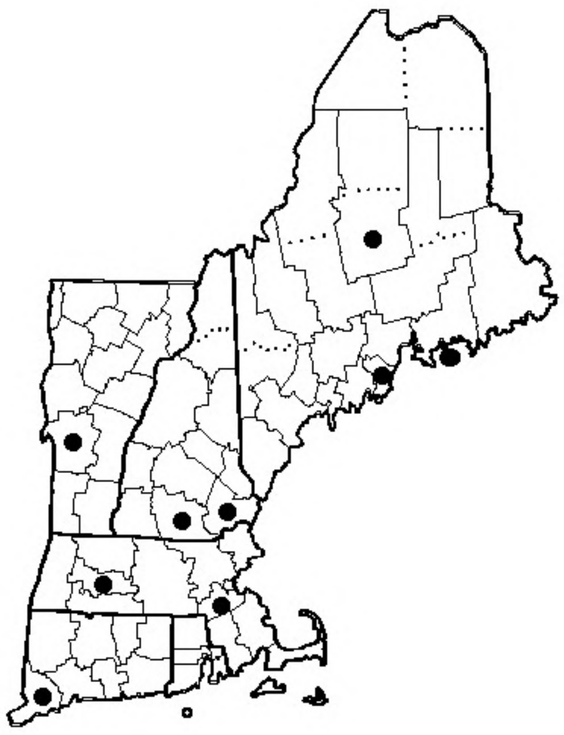


HIERACIUM LACHENALII

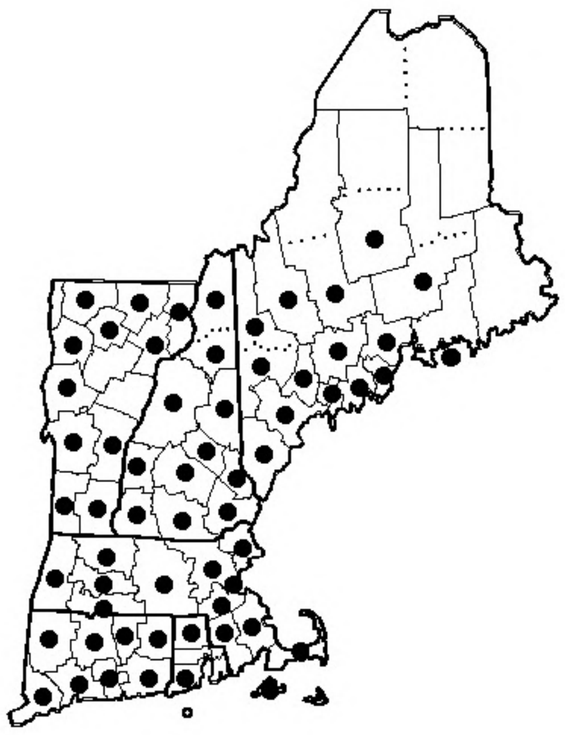


HIERACIUM MACULATUM

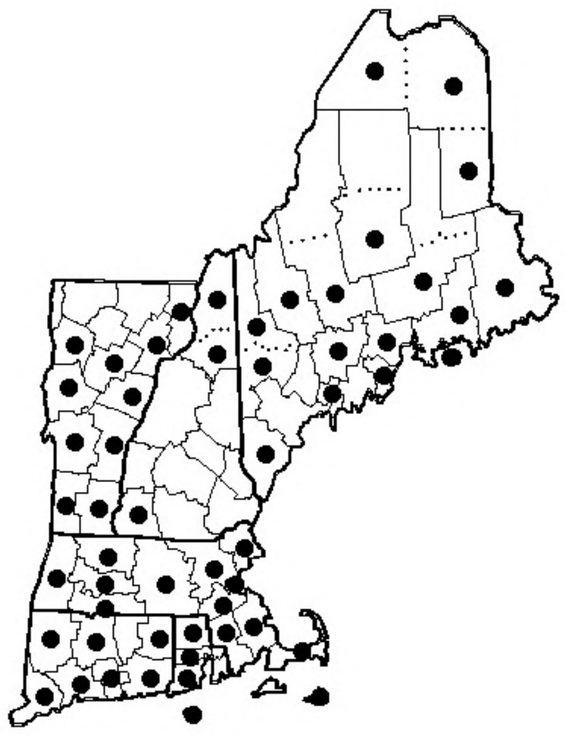
Figure 26. Distribution maps.



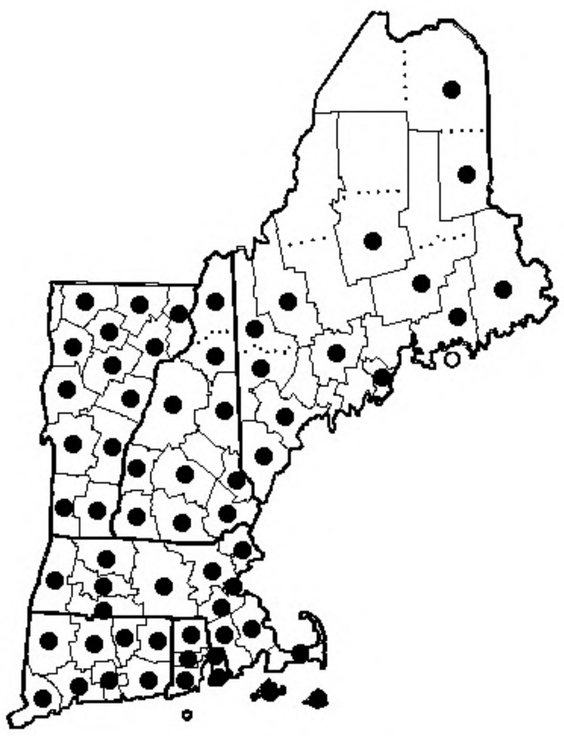
HIERACIUM MURORUM



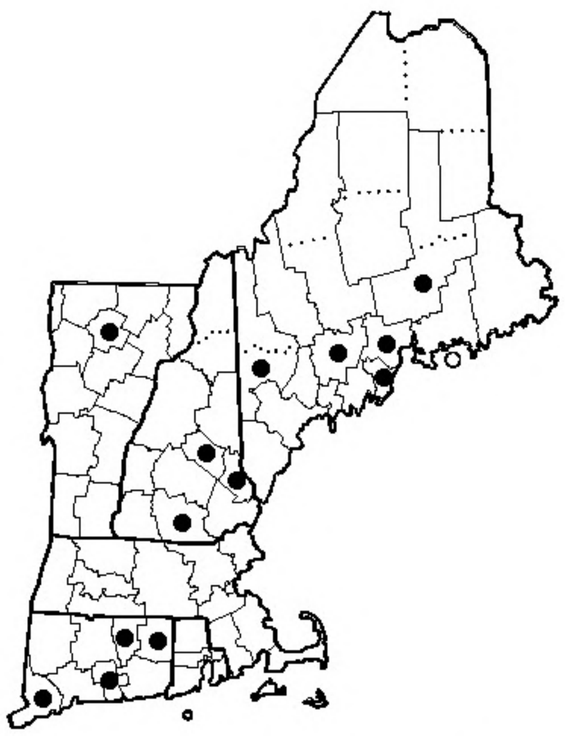
Hieracium paniculatum



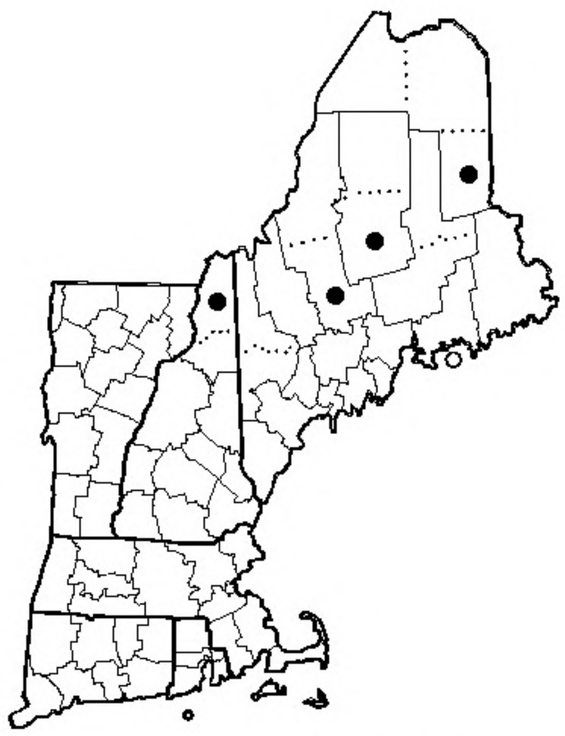
HIERACIUM PILOSELLA



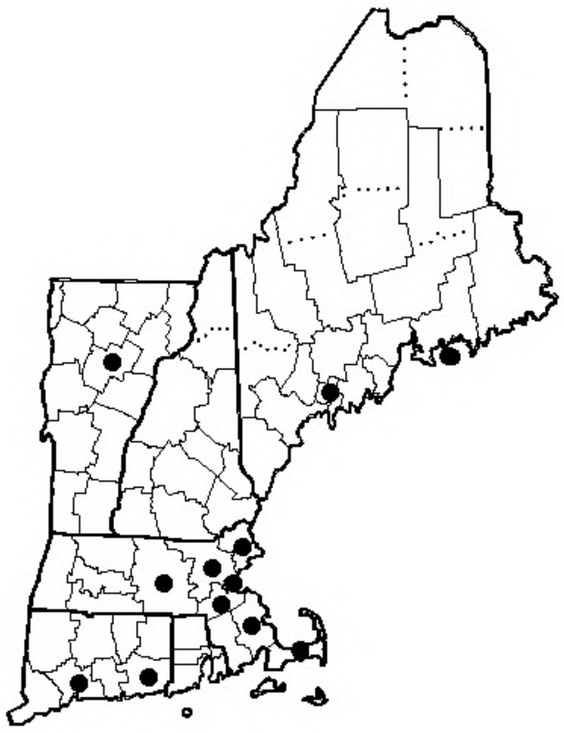
HIERACIUM PILOSELLOIDES



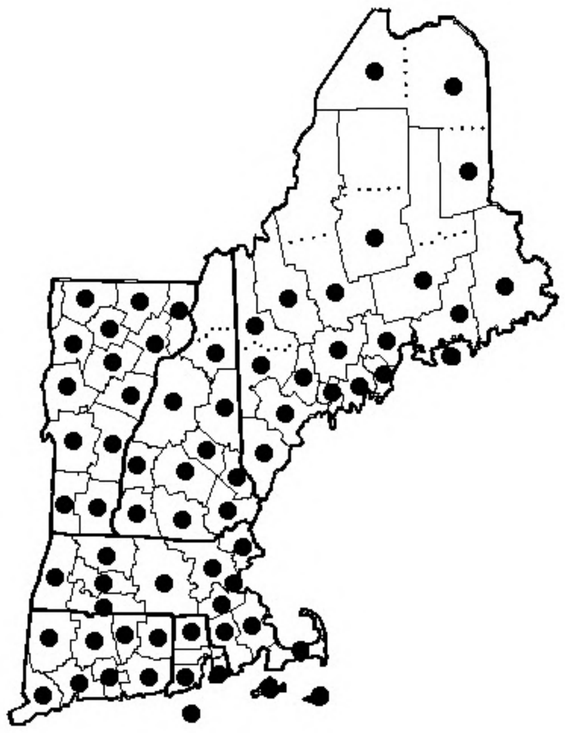
HIERACIUM PRAEALTUM



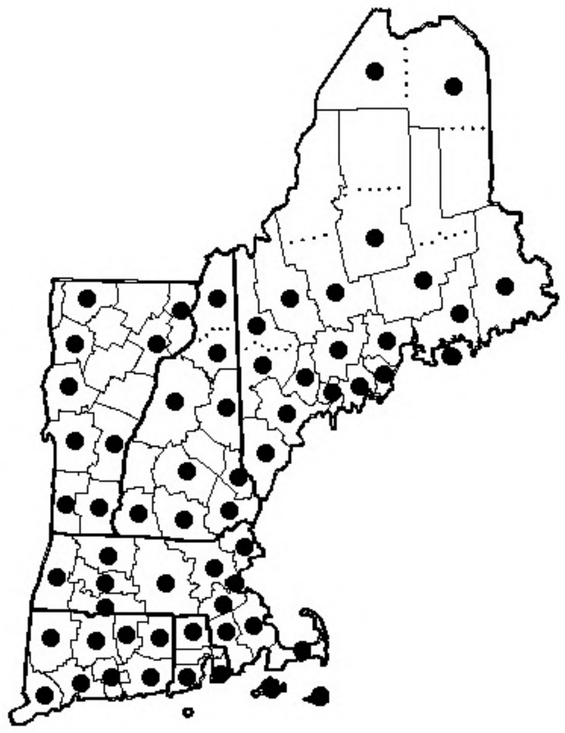
Hieracium robinsonii



HIERACIUM SABAUDUM

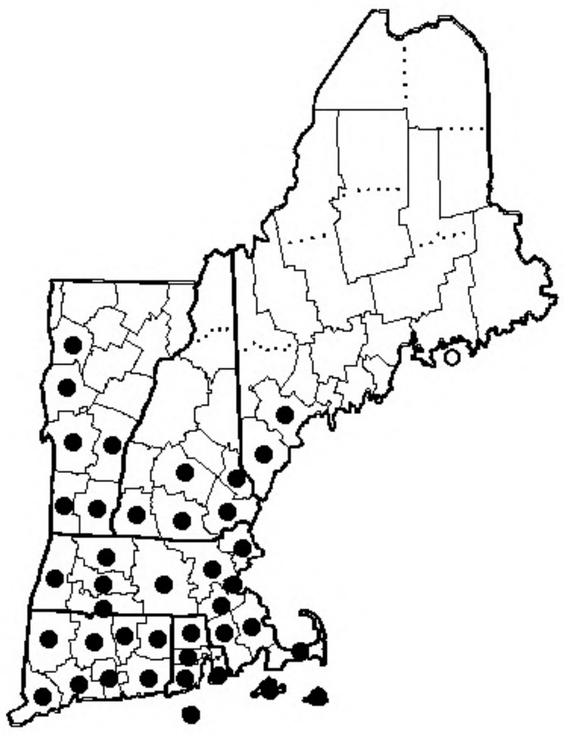


Hieracium scabrum

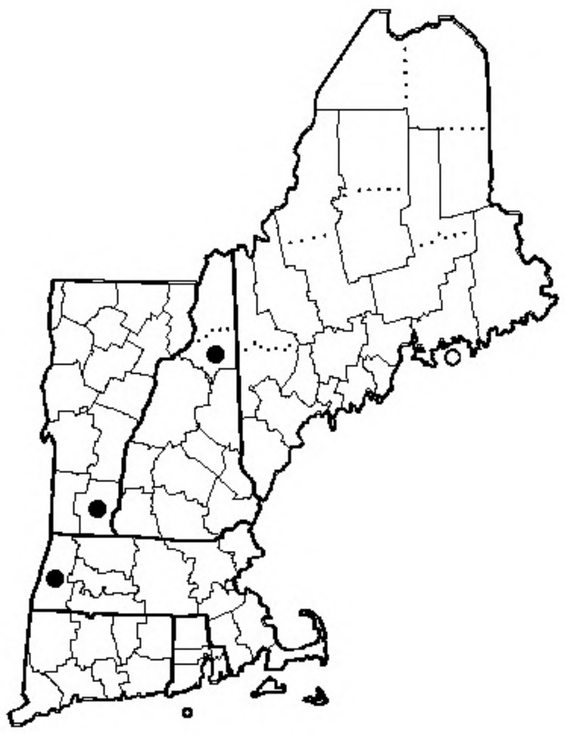


Hieracium umbellatum

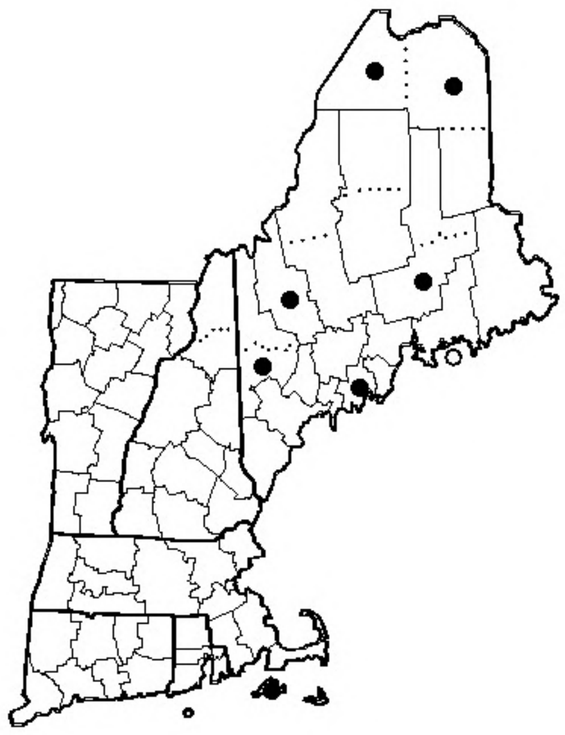
Figure 27. Distribution maps.



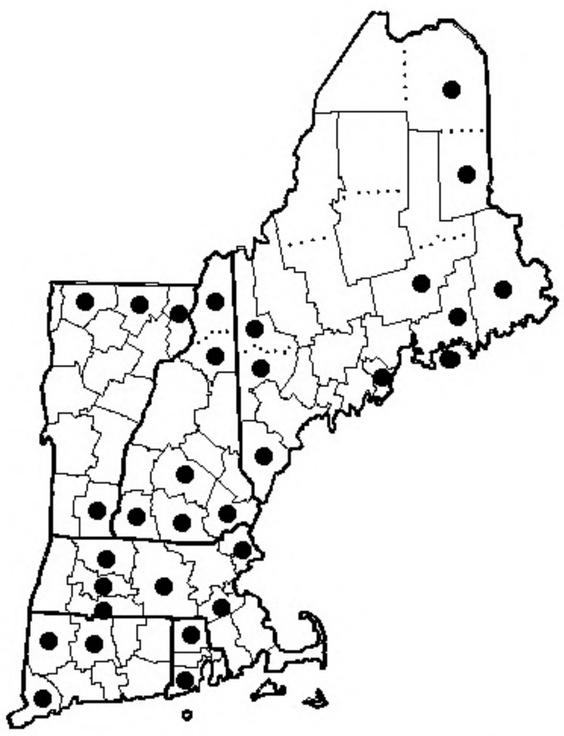
Hieracium venosum



HIERACIUM X ATRAMENTARIUM



Hieracium X fassettii



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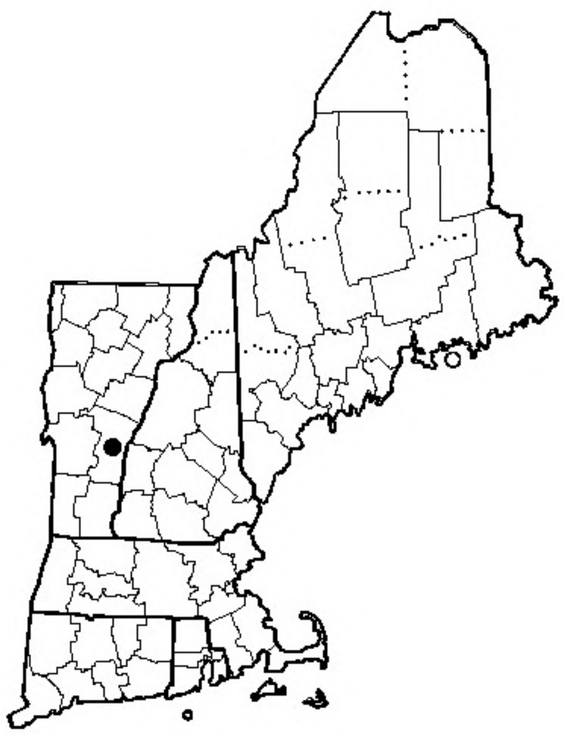
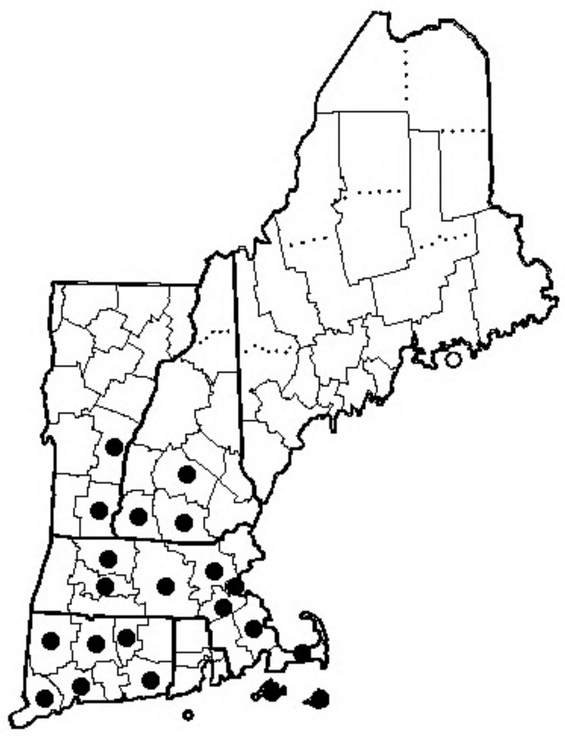
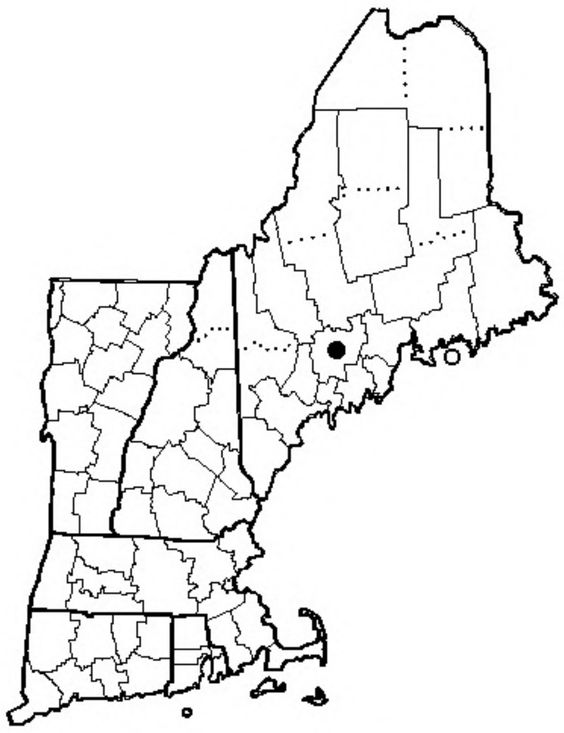


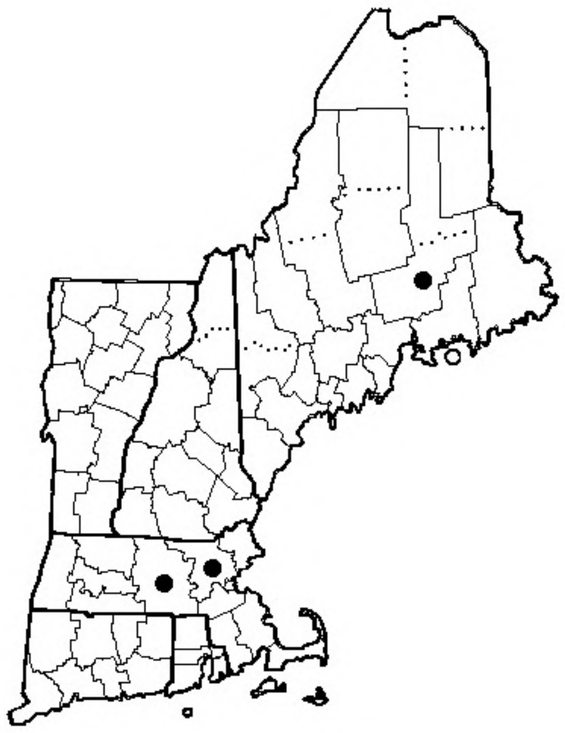
HIERACIUM X FUSCOATRUM



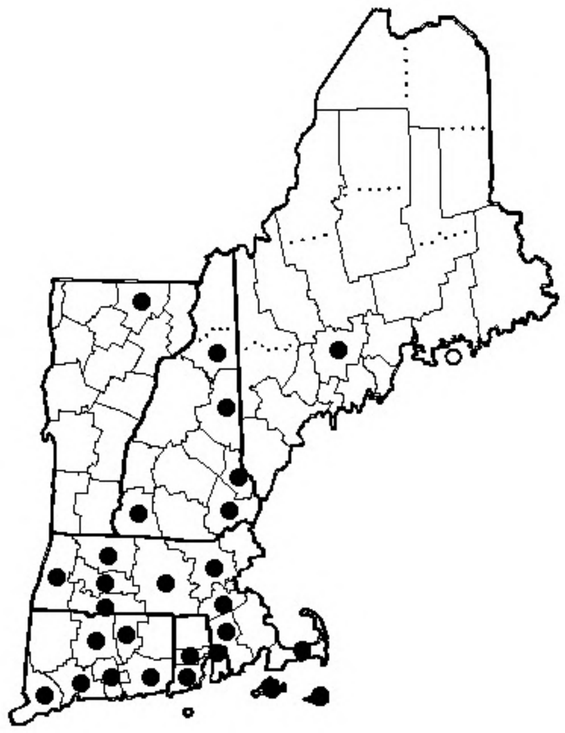
Hieracium X marianum



HYMENOXYS ODORATA

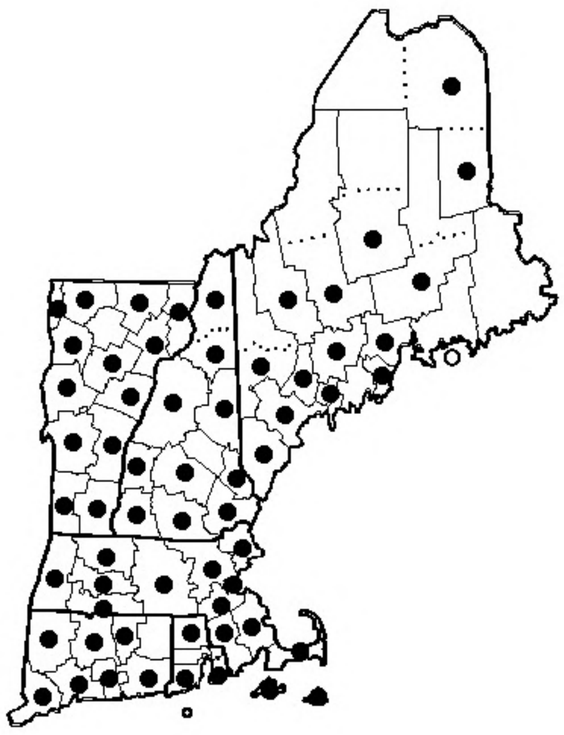


HYPOCHAERIS GLABRA

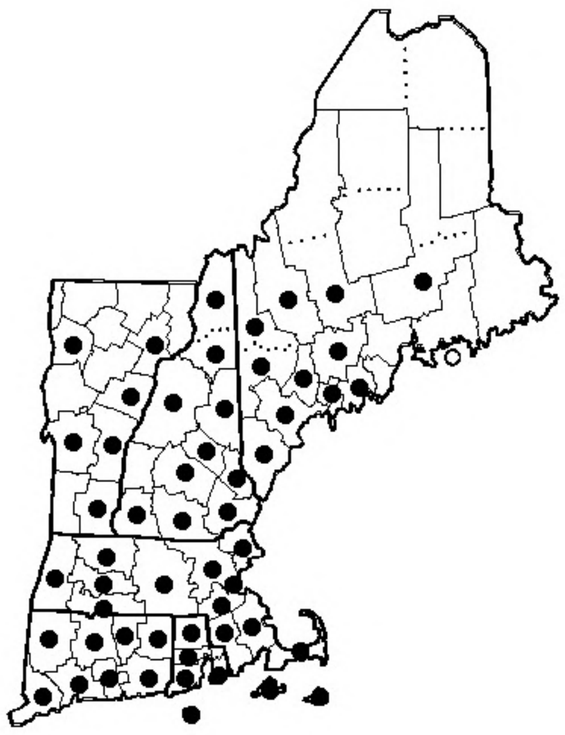


HYPOCHAERIS RADICATA

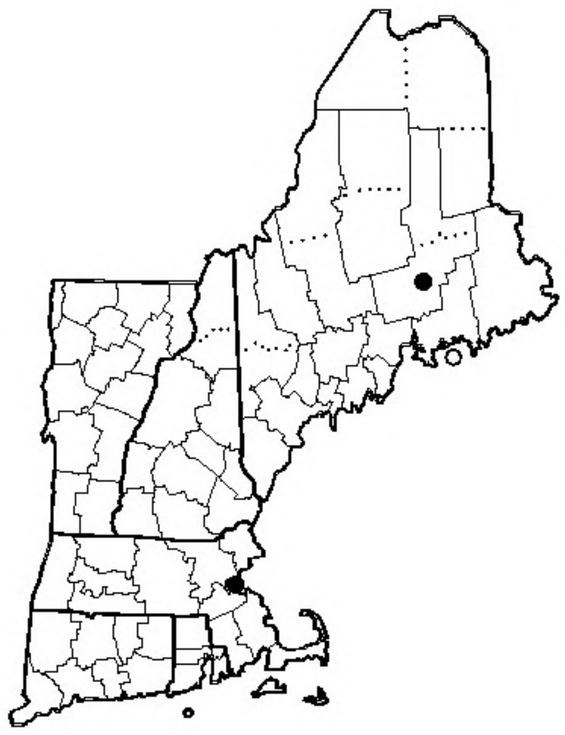
Figure 28. Distribution maps.



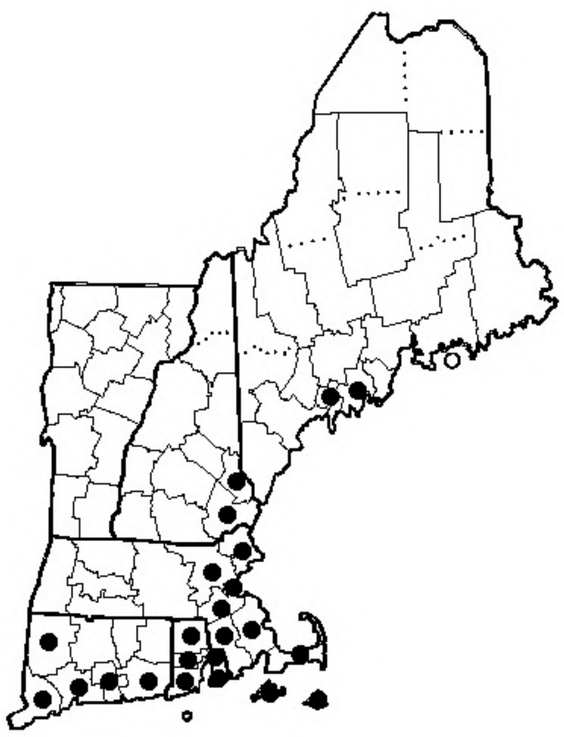
INULA HELENIUM



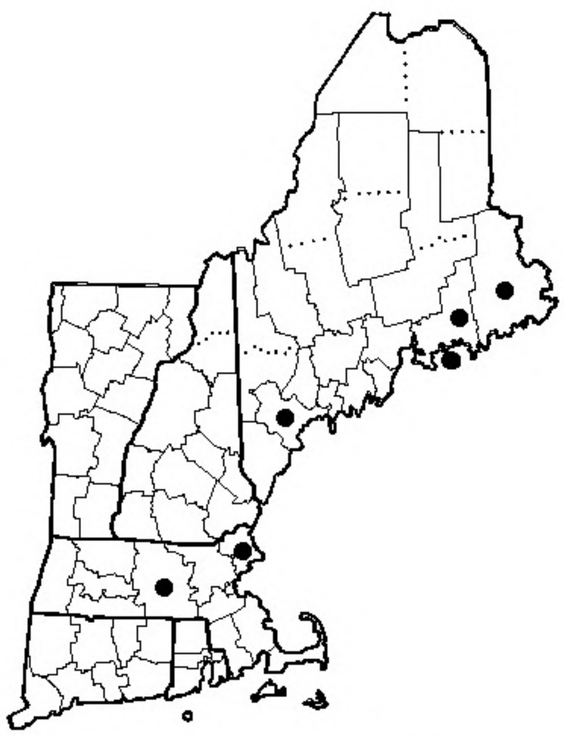
Ionactis linariifolia



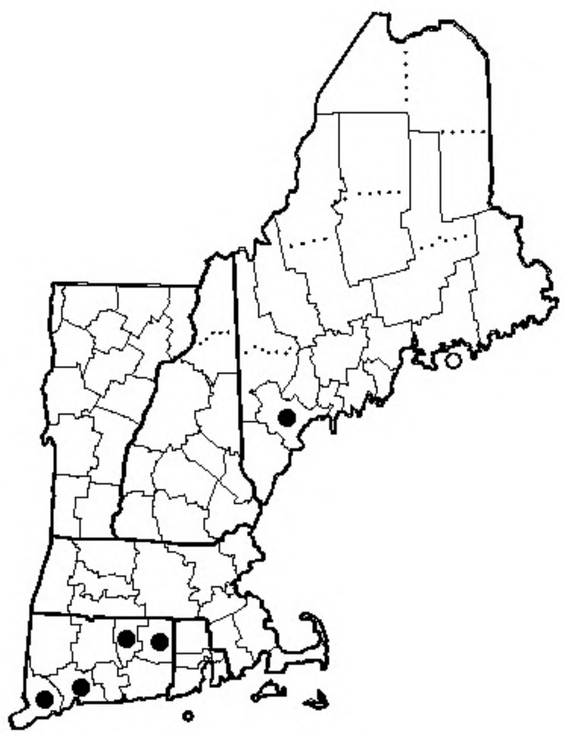
IVA ANNUA



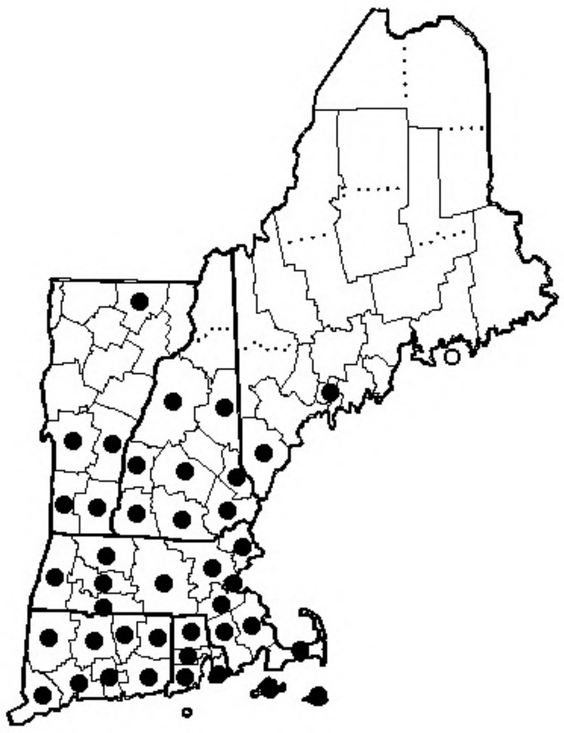
Iva frutescens



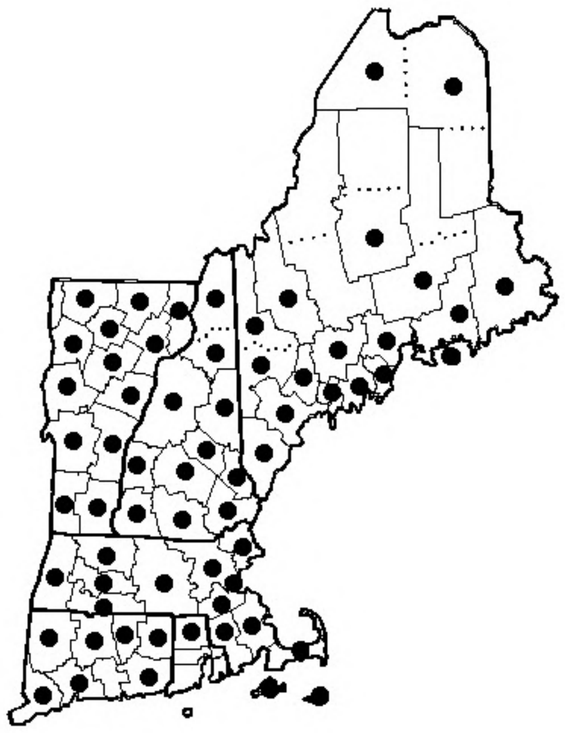
JACOBAEA VULGARIS



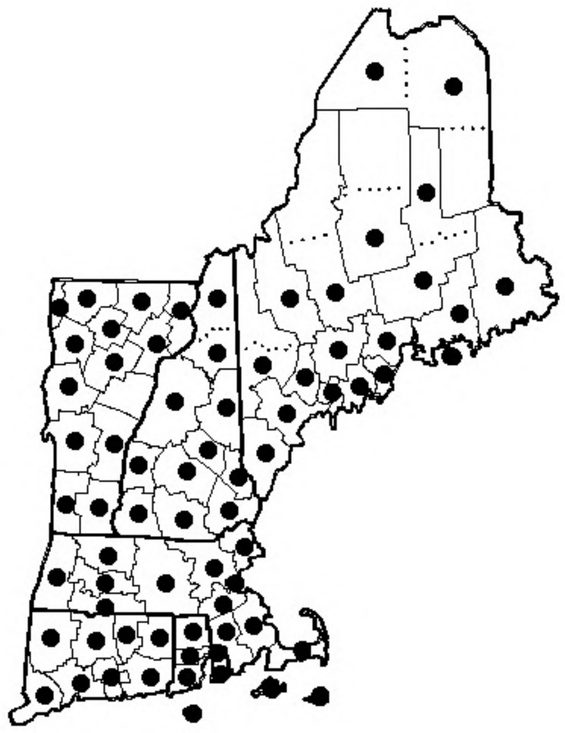
Krigia biflora



Krigia virginica

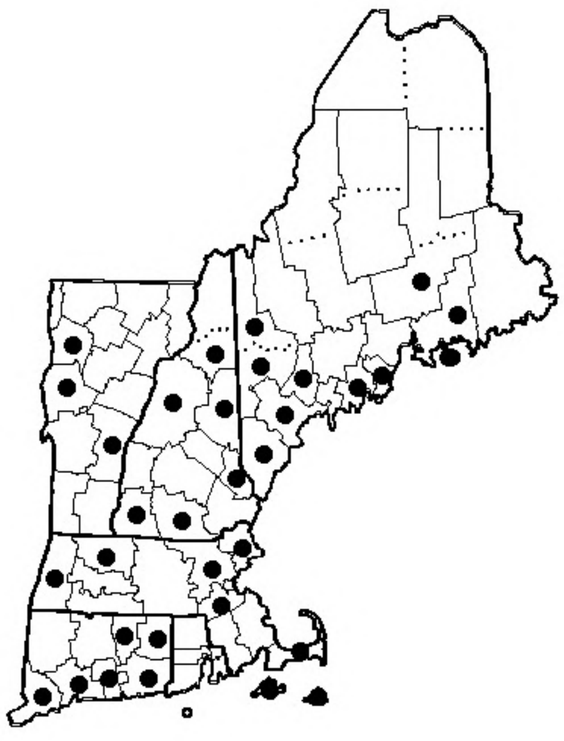


Lactuca biennis

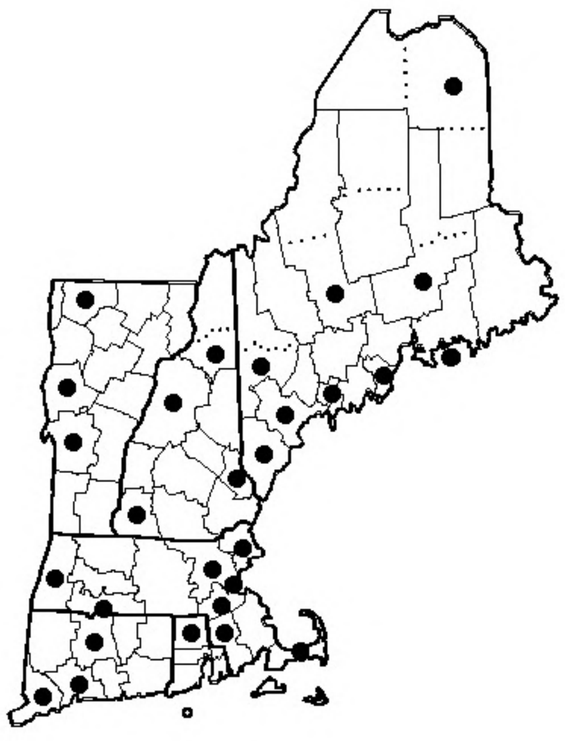


Lactuca canadensis

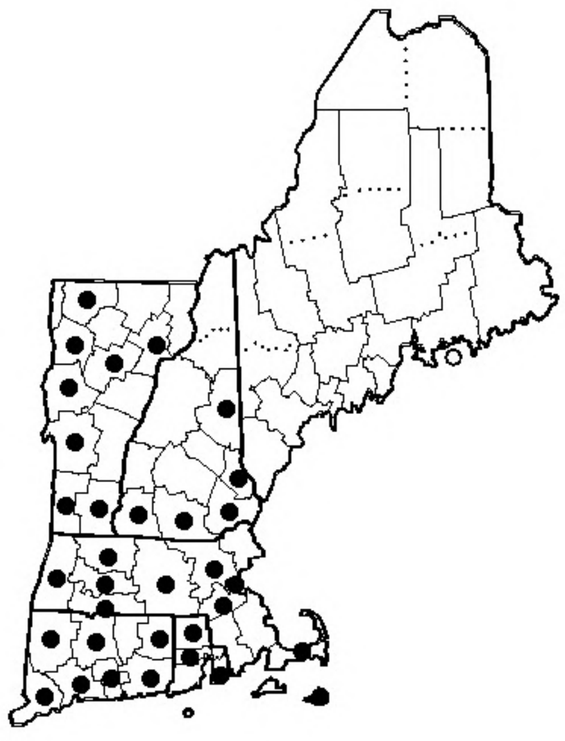
Figure 29. Distribution maps.



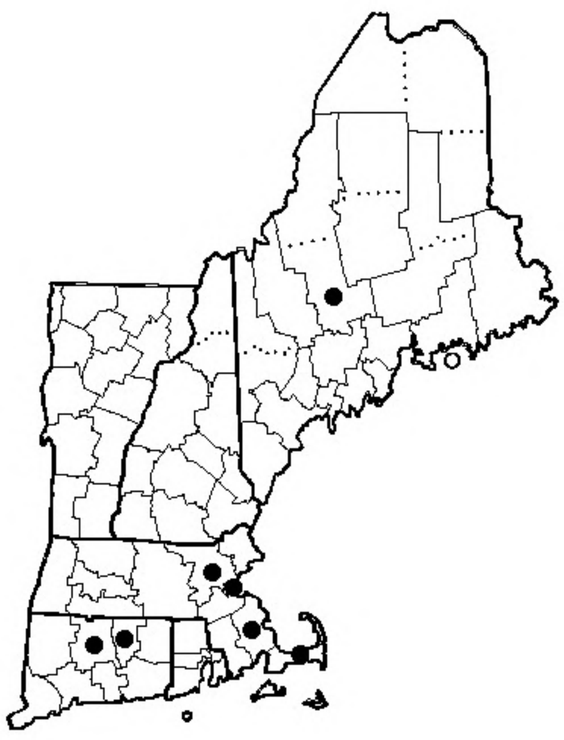
Lactuca hirsuta



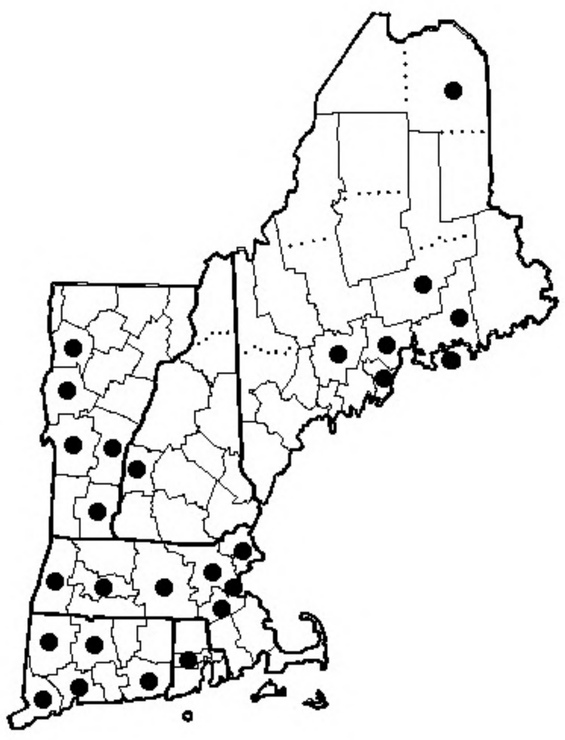
LACTUCA SATIVA



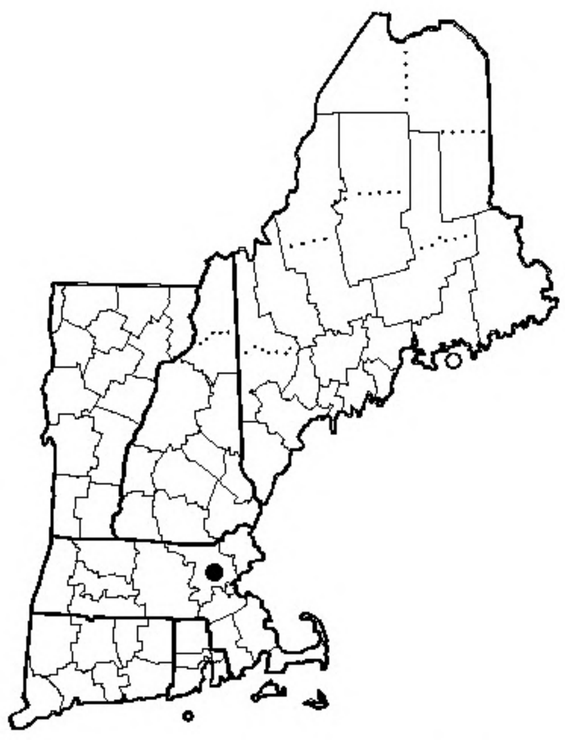
LACTUCA SERRIOLA



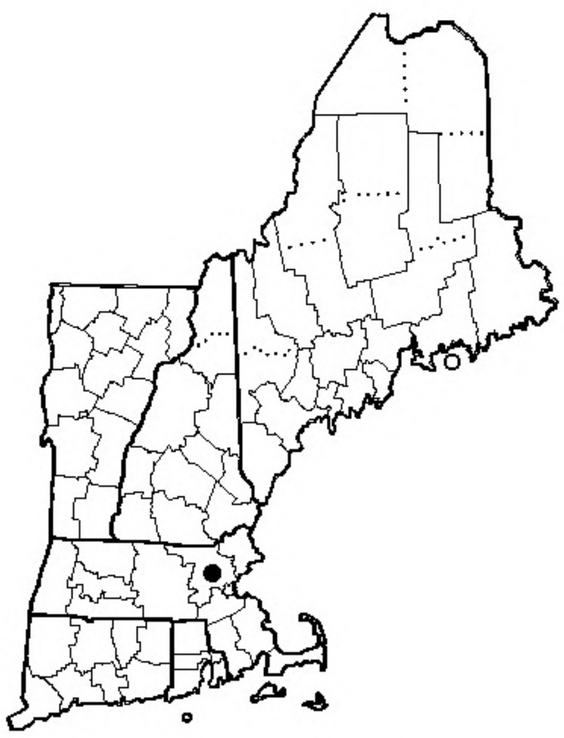
Lactuca X morssii



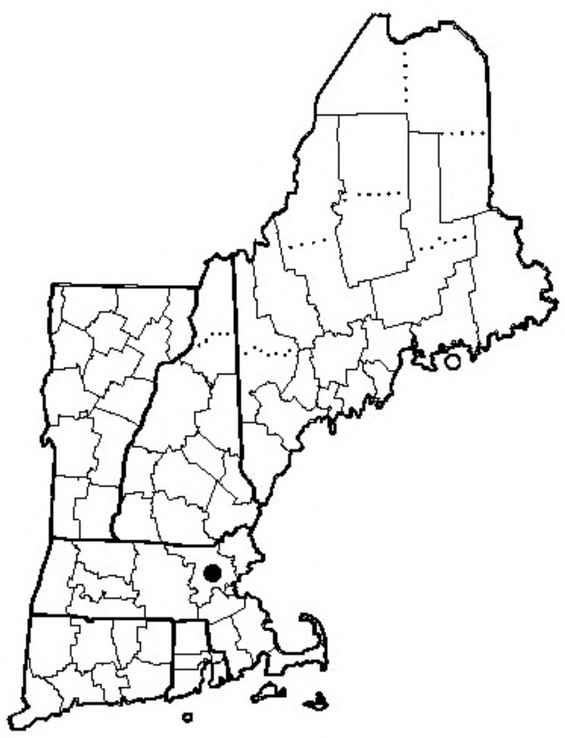
LAPSANA COMMUNIS



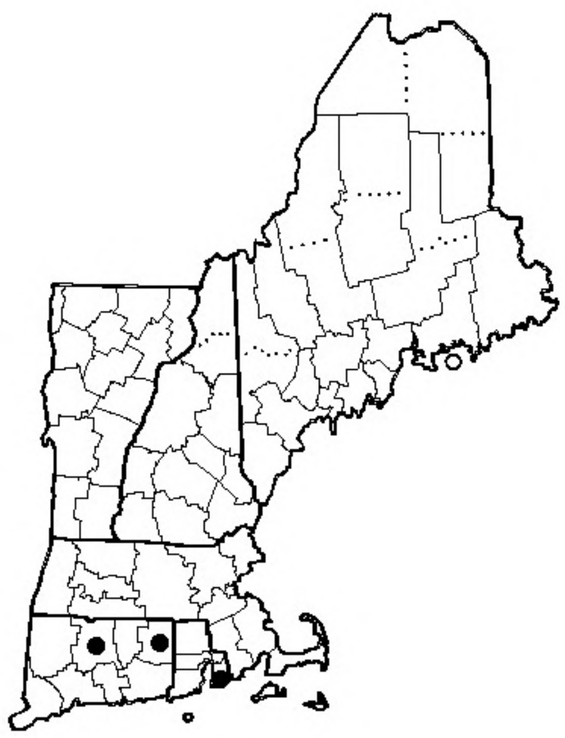
LASTHENIA CALIFORNICA
subsp. *CALIFORNICA*



LASTHENIA MINOR

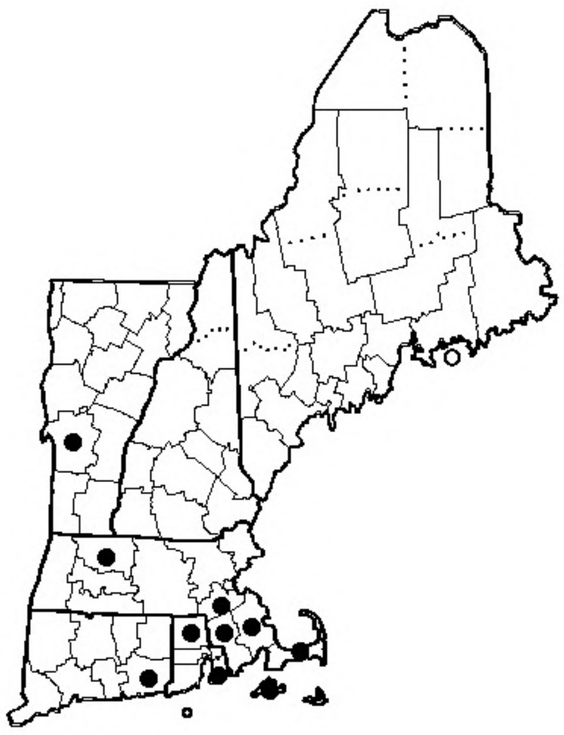


LAYIA PLATYGLOSSA

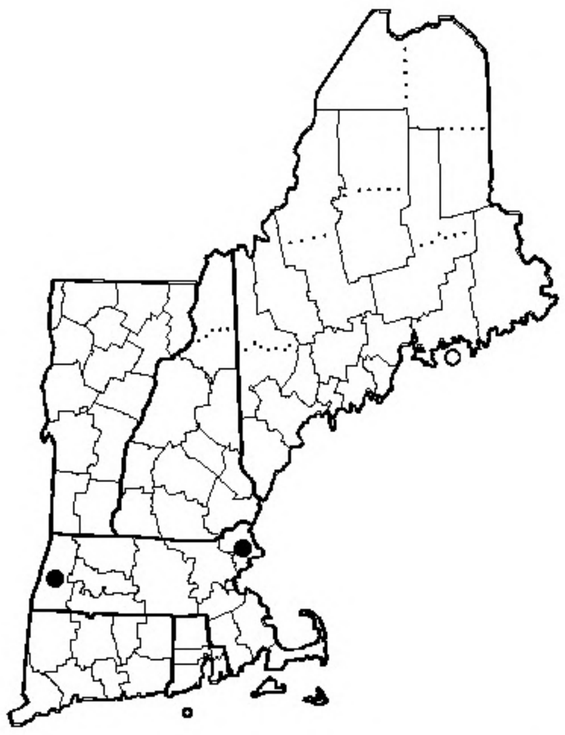


LEONTODON HISPIDUS

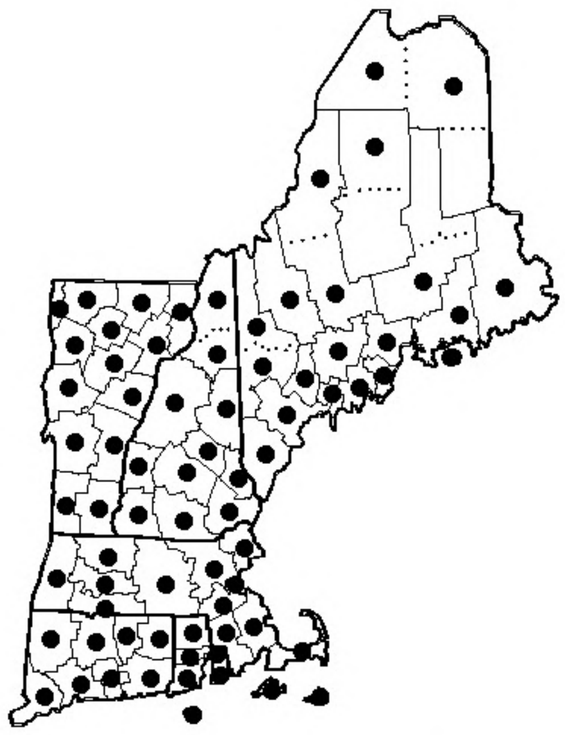
Figure 30. Distribution maps.



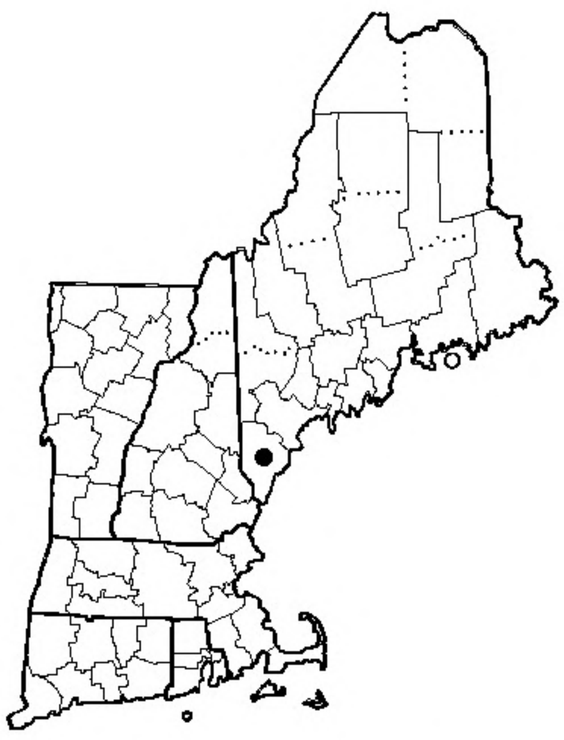
LEONTODON SAXATILIS
subsp. *SAXATILIS*



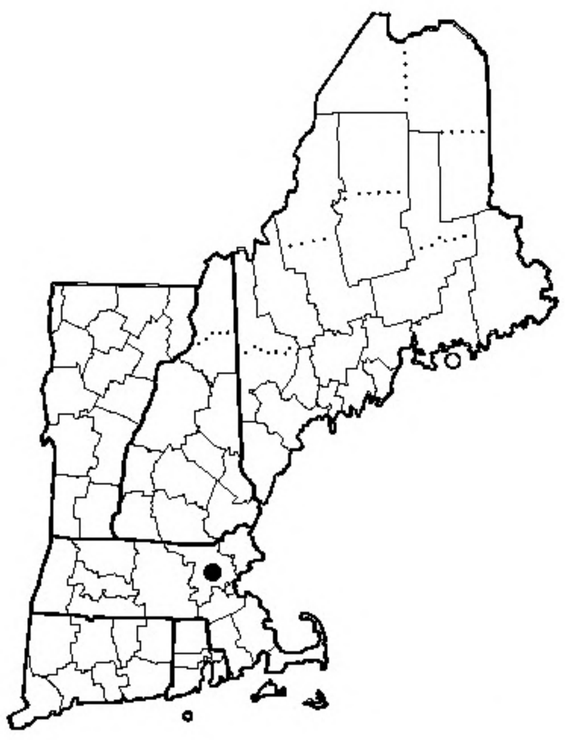
LEUCANTHEMELLA SEROTINA



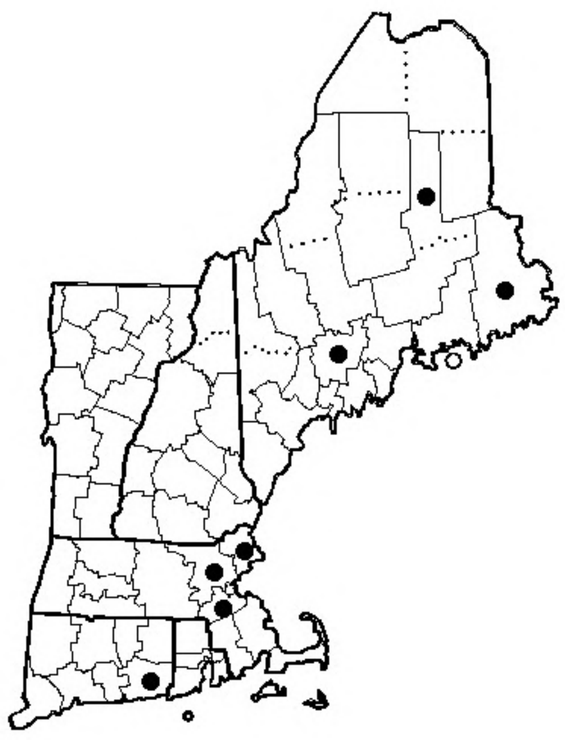
LEUCANTHEMUM VULGARE



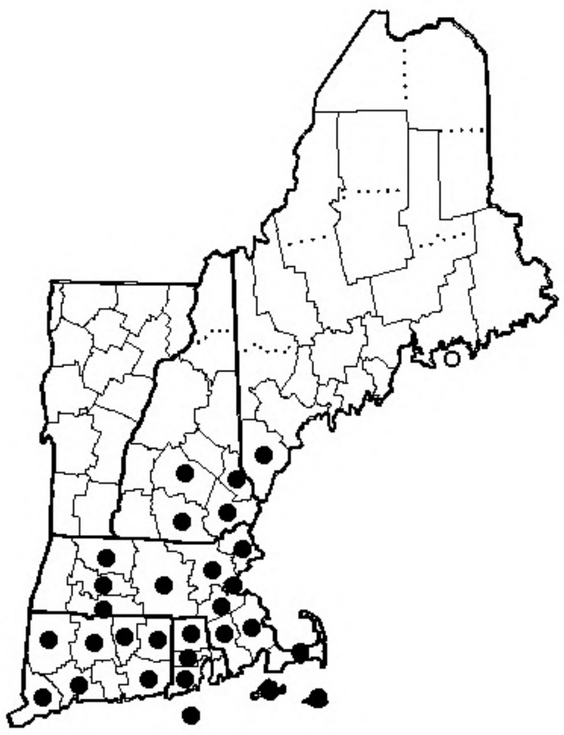
LEUCANTHEMUM X SUPERBUM



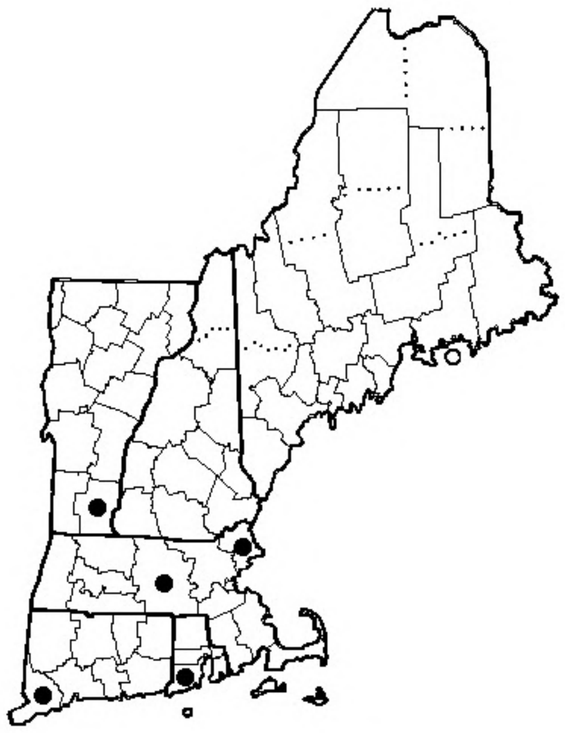
LIATRIS CYLINDRACEA



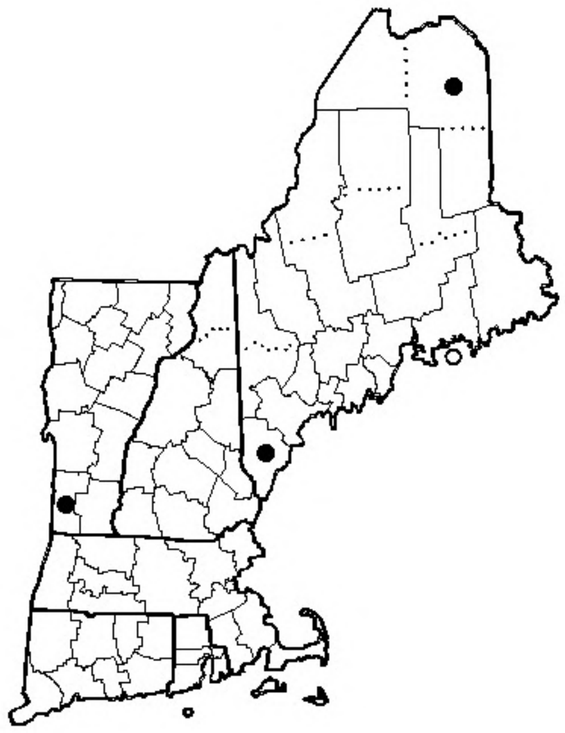
LIATRIS PYCNOSTACHYA
var. *PYCNOSTACHYA*



Liatris scariosa
var. *novae-angliae*

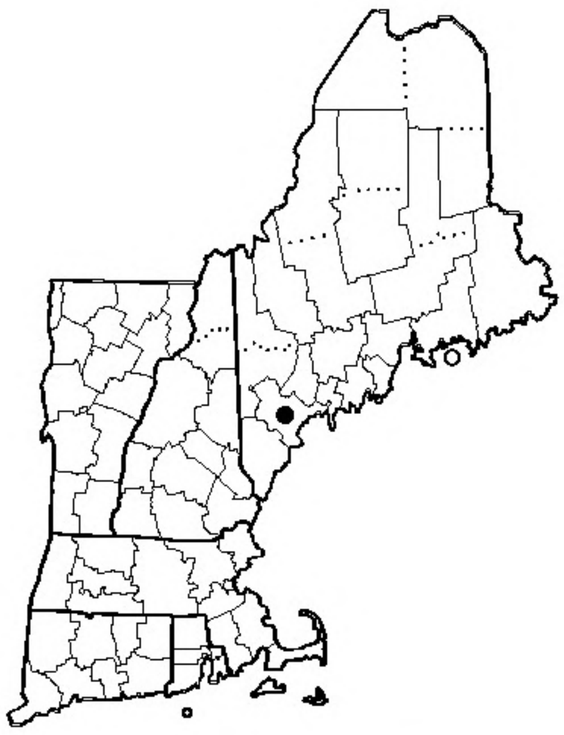


LIATRIS SPICATA
var. *SPICATA*

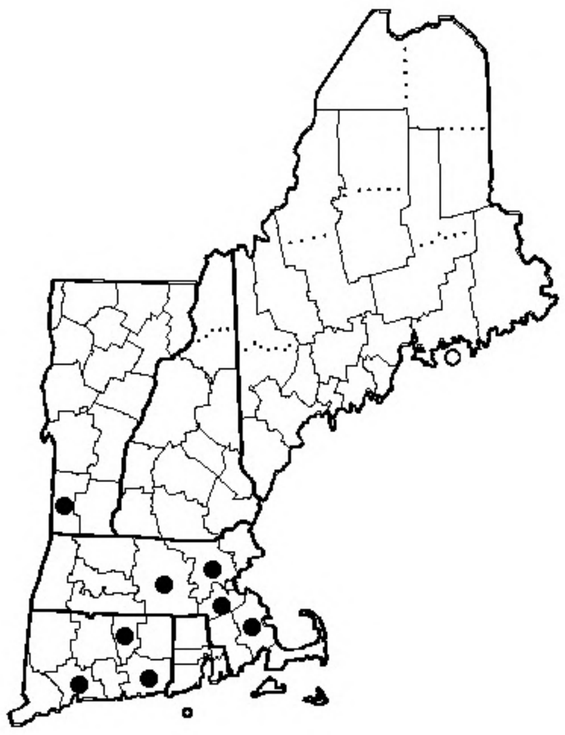


MADIA GLOMERATA

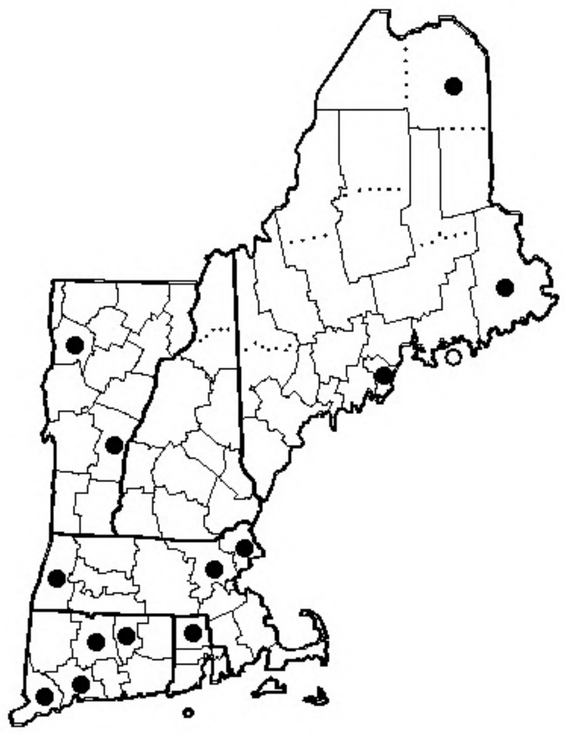
Figure 31. Distribution maps.



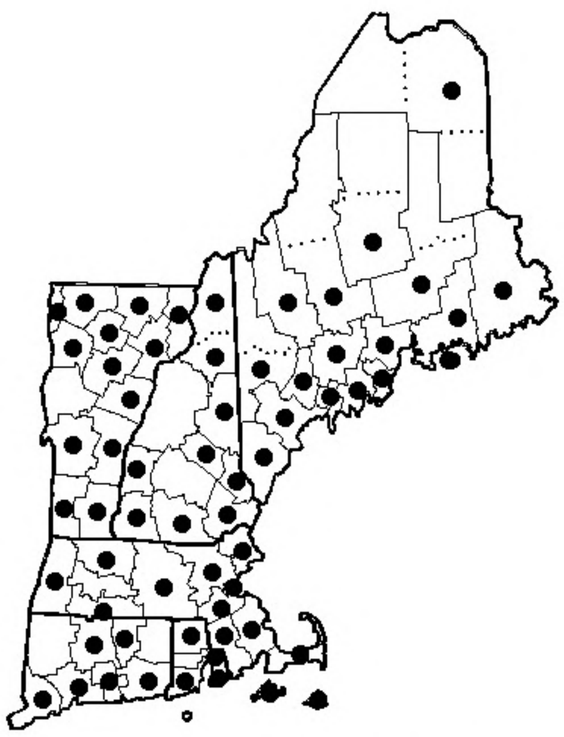
MADIA GRACILIS



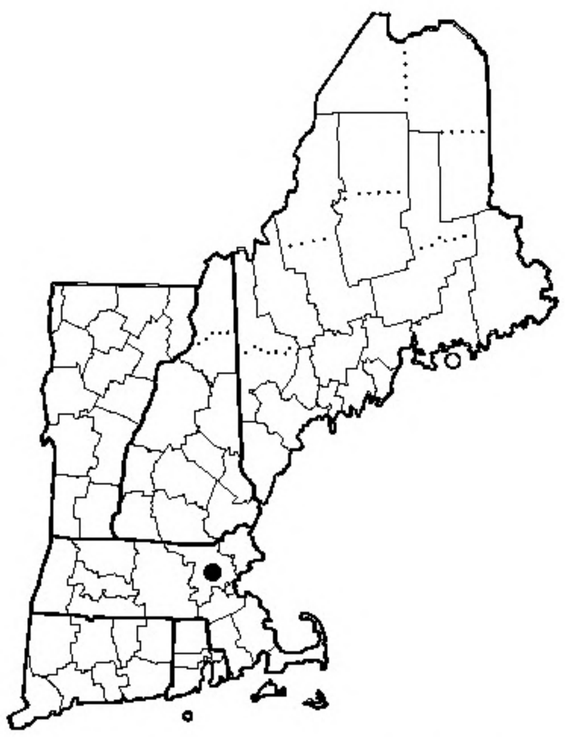
MADIA SATIVA



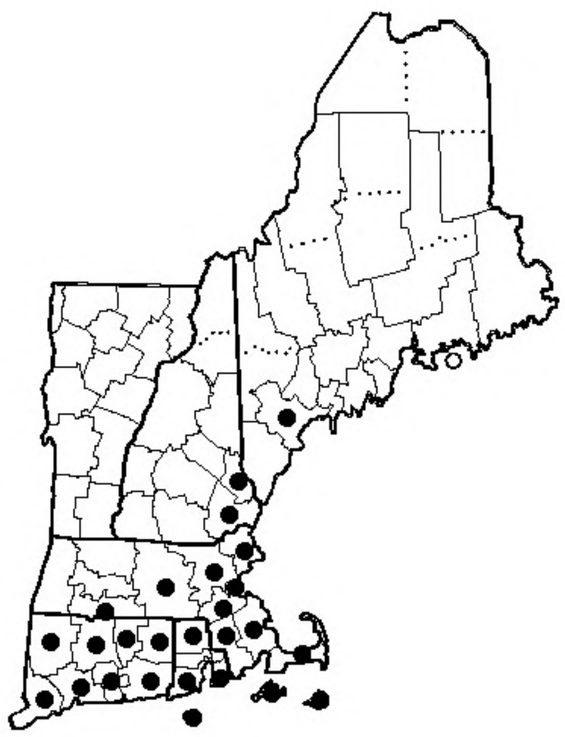
MATRICARIA CHAMOMILLA



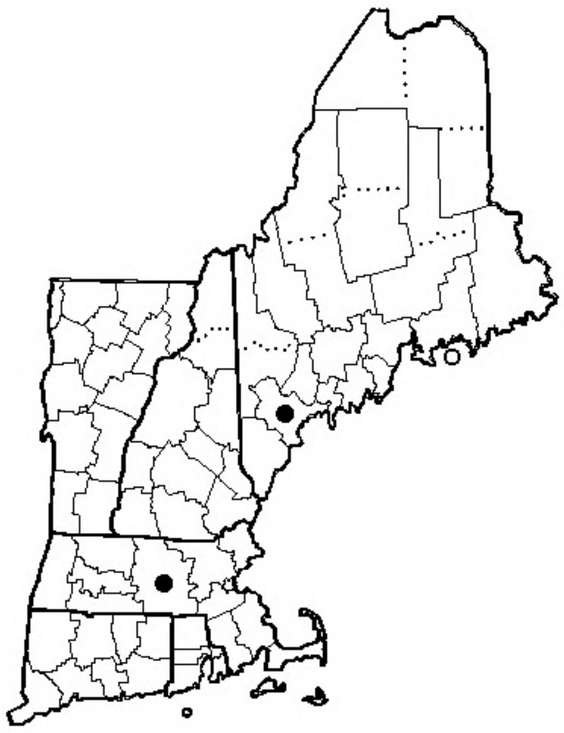
MATRICARIA DISCOIDEA



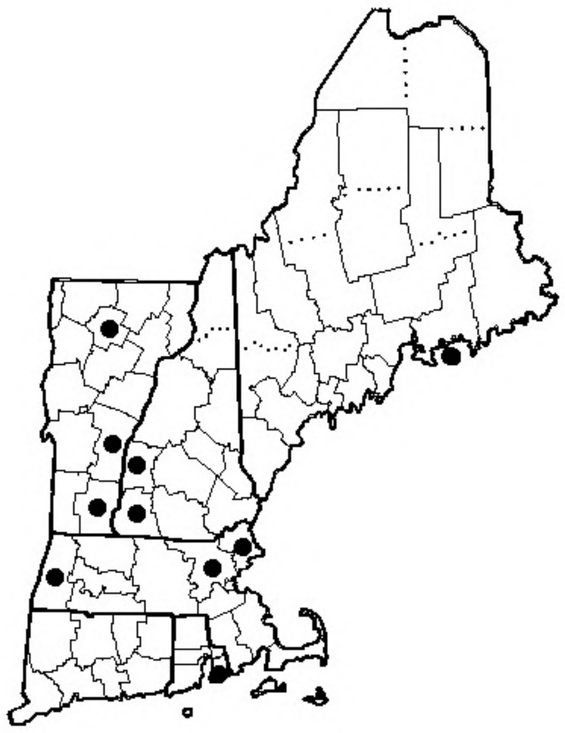
MICROSERIS DOUGLASII
subsp. *DOUGLASII*



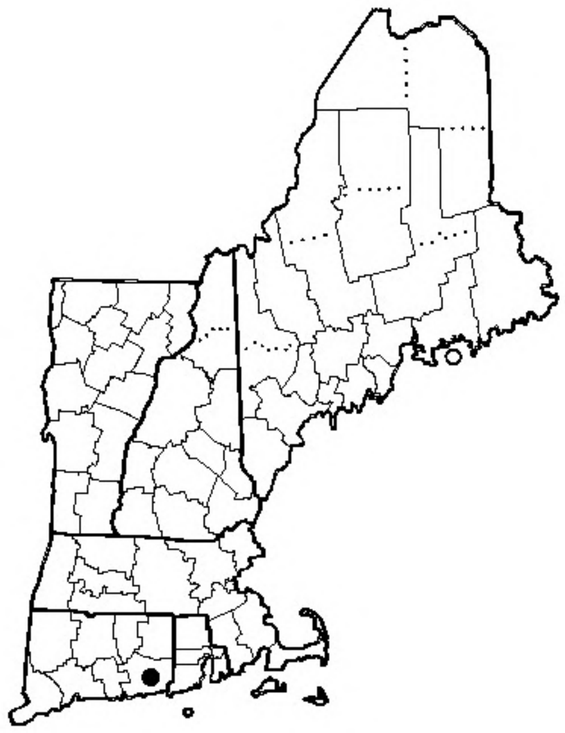
Mikania scandens



MULGEDIUM PULCHELLUM

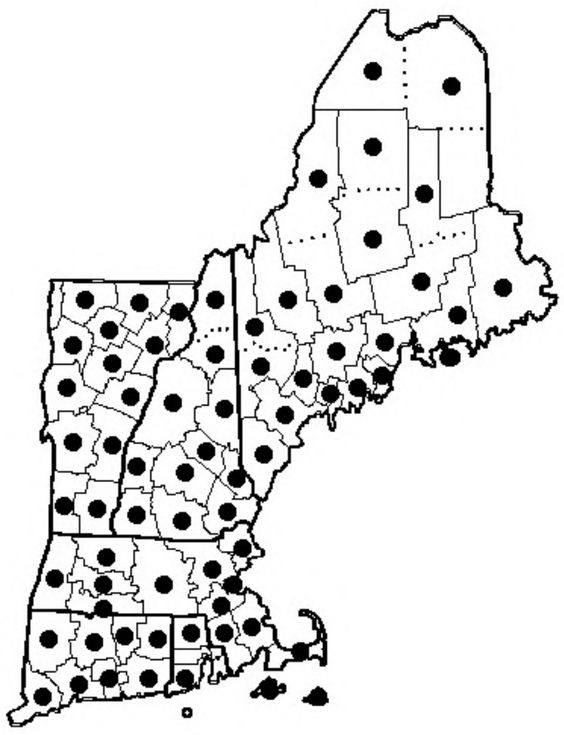


MYCELIS MURALIS

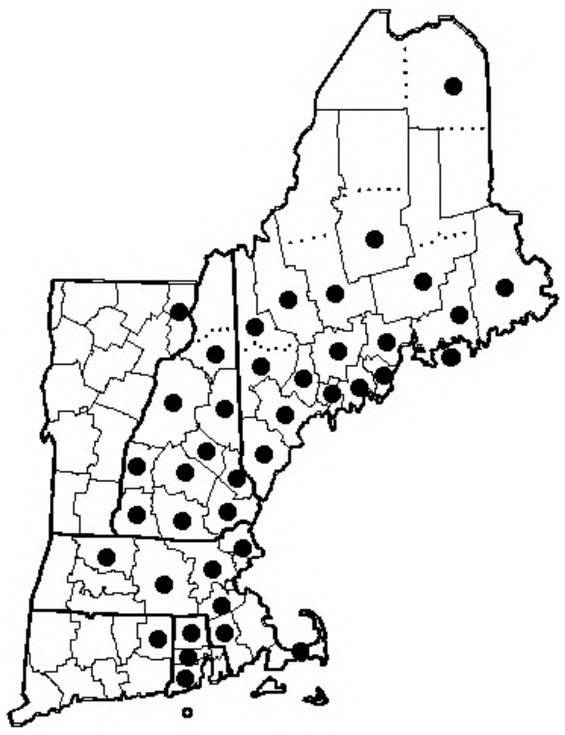


NIPPONANTHEMUM NIPPONICUM

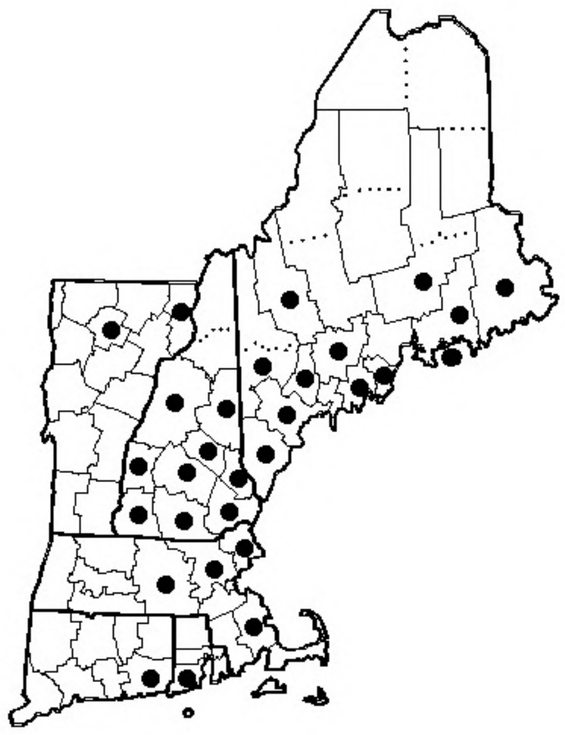
Figure 32. Distribution maps.



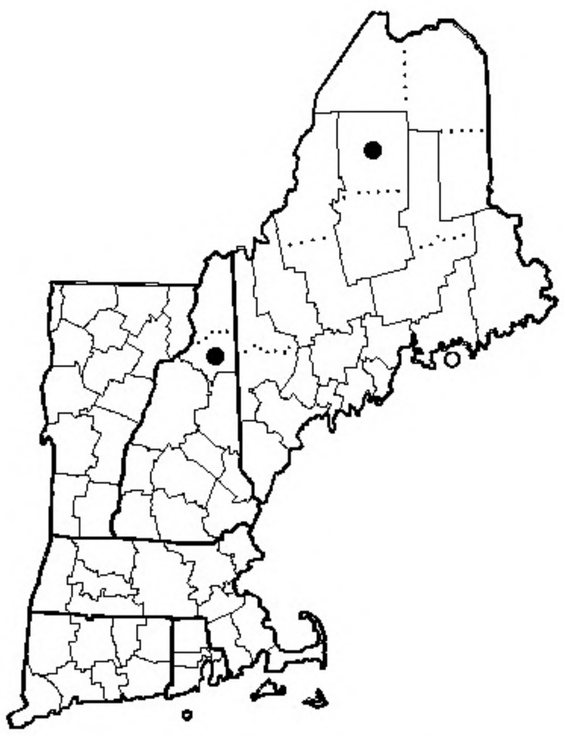
Oclemena acuminata



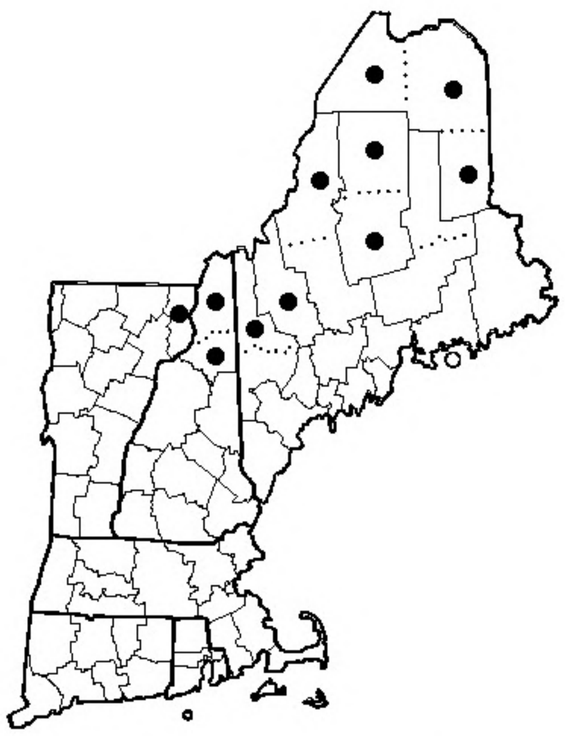
Oclemena nemoralis



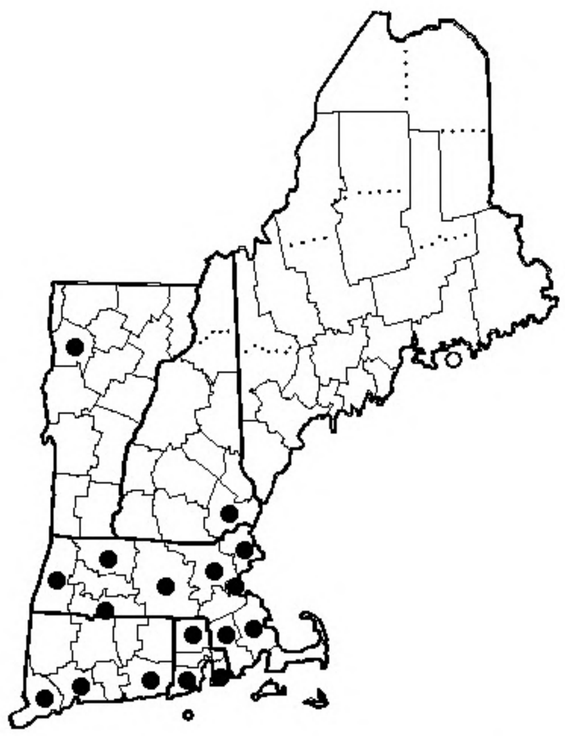
Oclemena X blakei



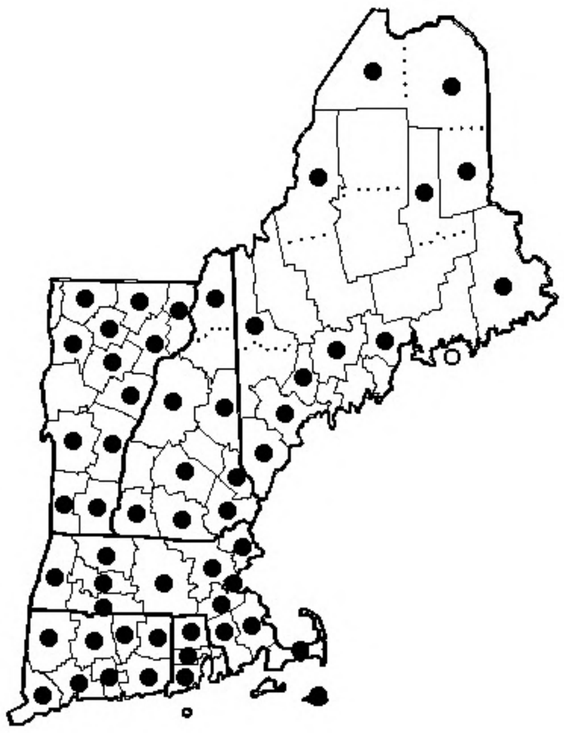
Omalotheca supina



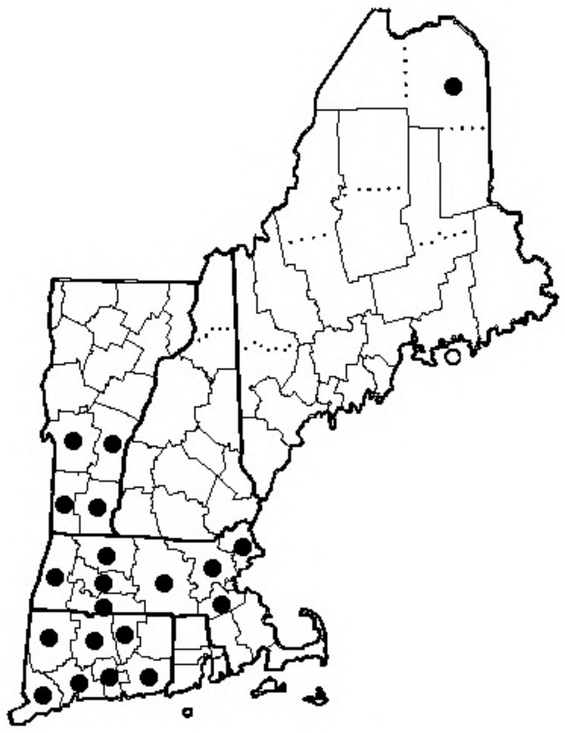
Omalotheca sylvatica



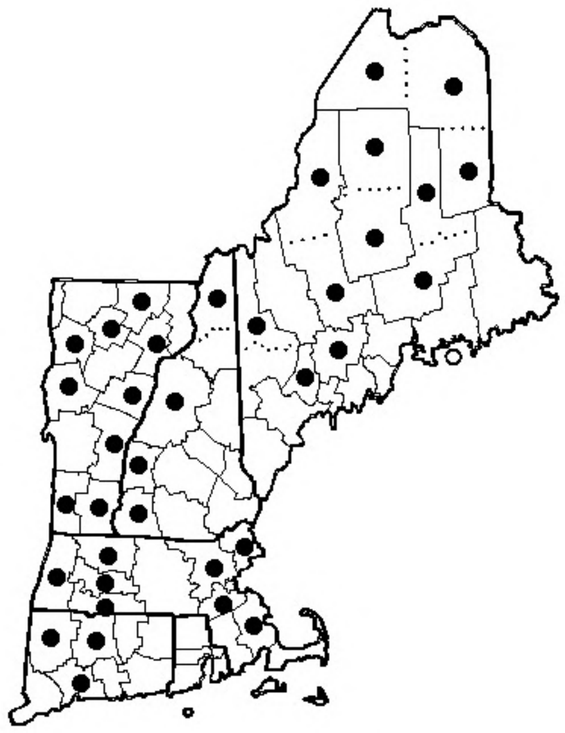
ONOPORDUM ACANTHIUM
subsp. *ACANTHIUM*



Packera aurea

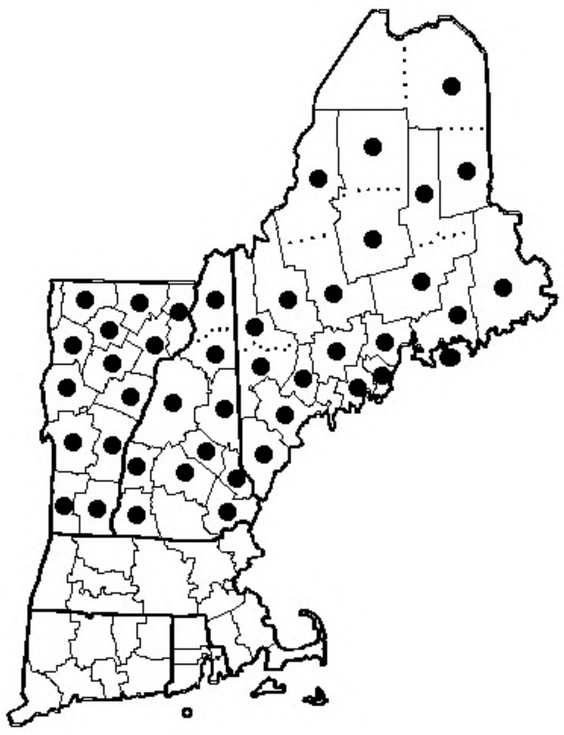


Packera obovata

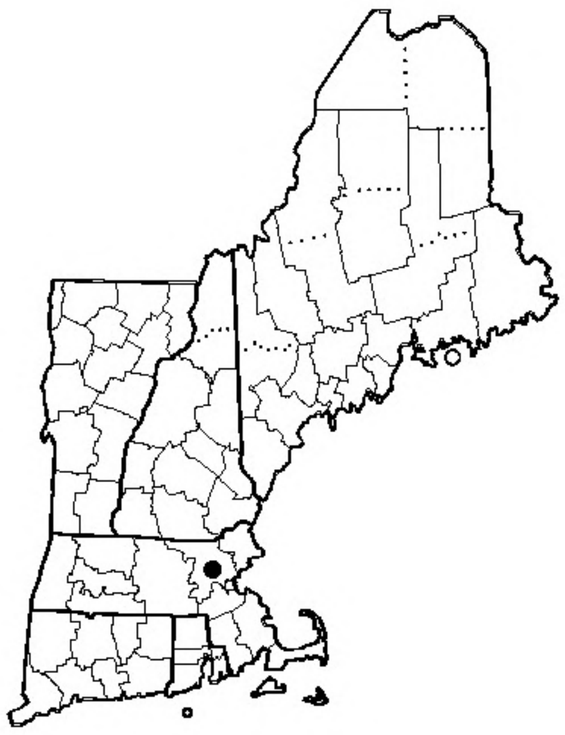


Packera paupercula

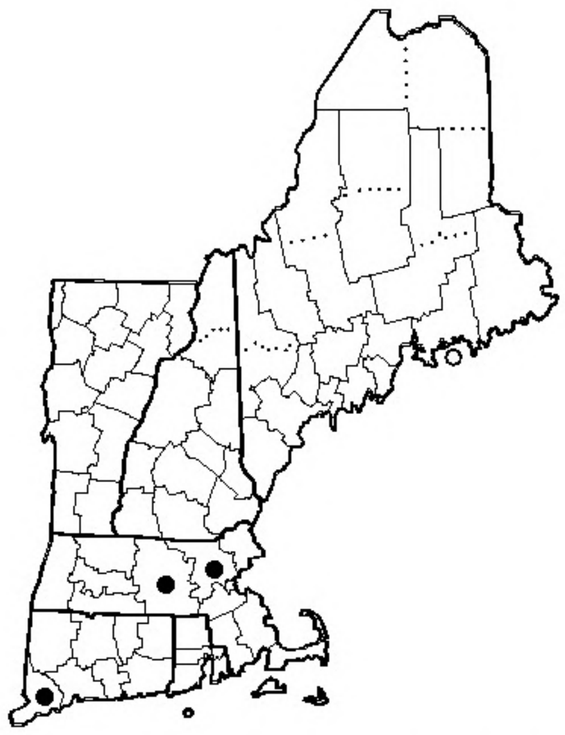
Figure 33. Distribution maps.



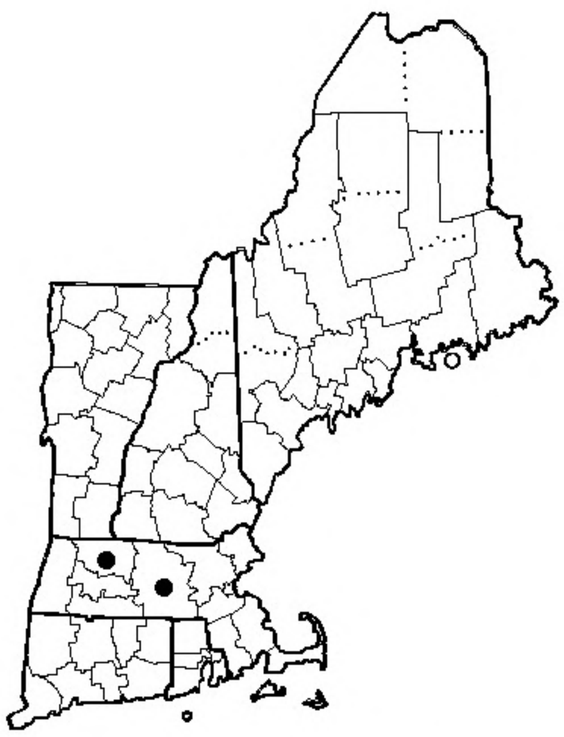
Packera schweinitziana



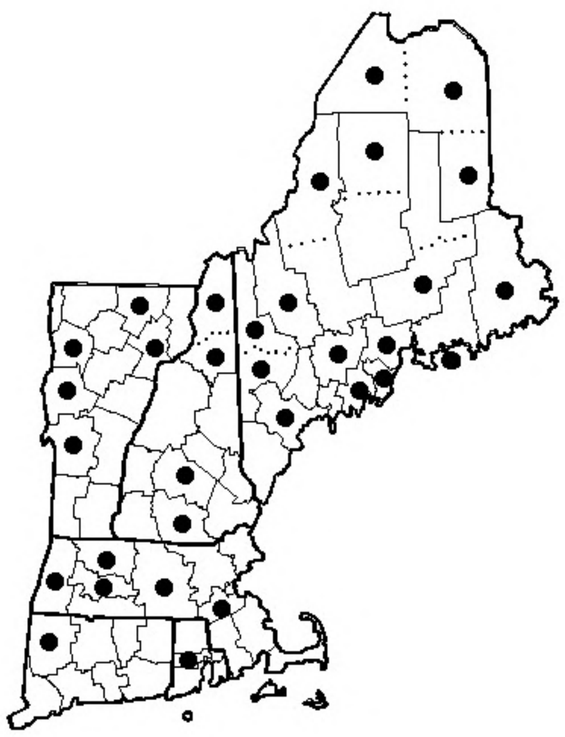
PALAFOXIA TEXANA



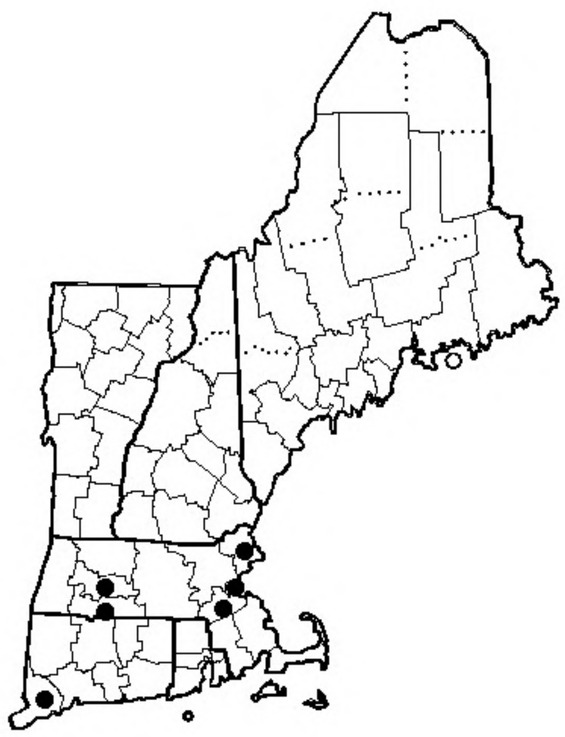
PARTHENIUM HYSTEROPHORUS



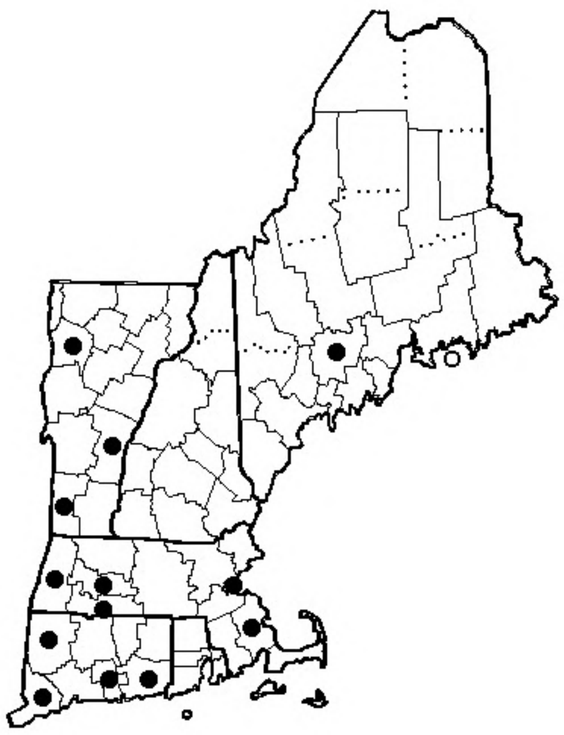
PARTHENIUM INTEGRIFOLIUM



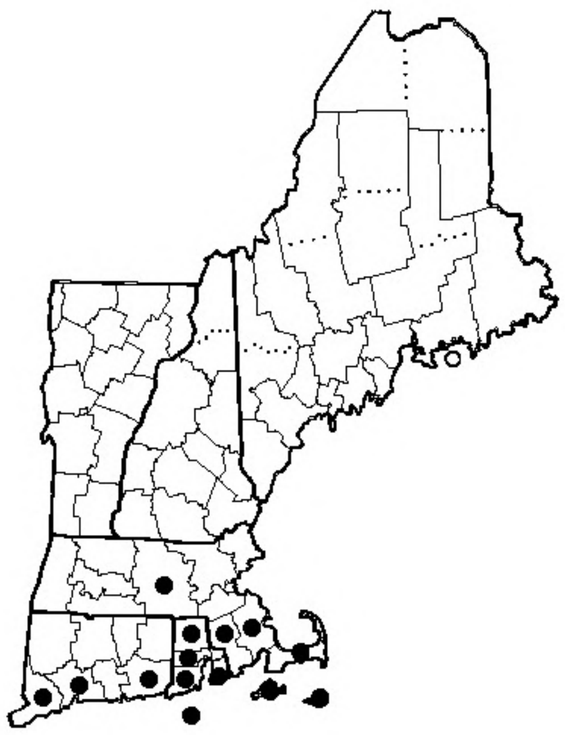
Petasites frigidus
var. *palmatus*



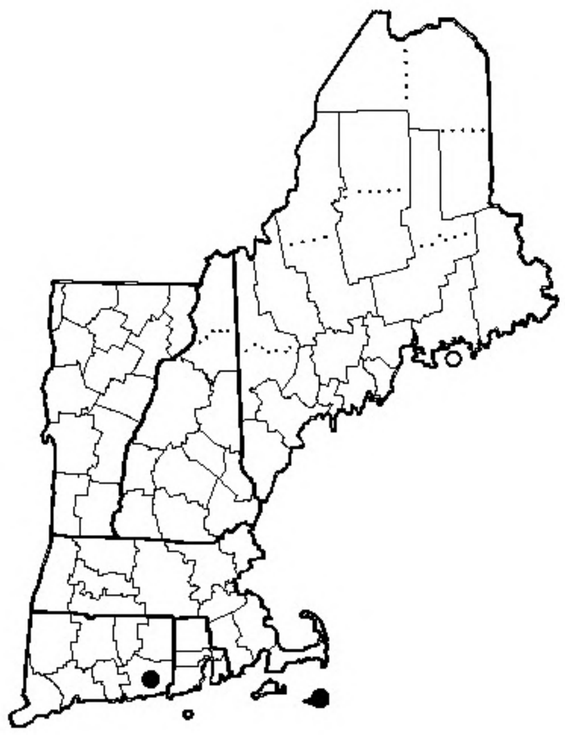
PETASITES HYBRIDUS



PICRIS HIERACIOIDES

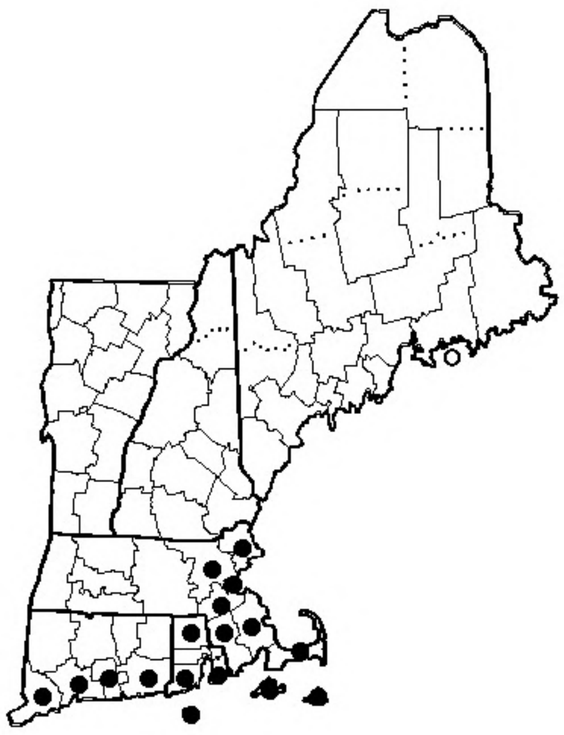


Pityopsis falcata

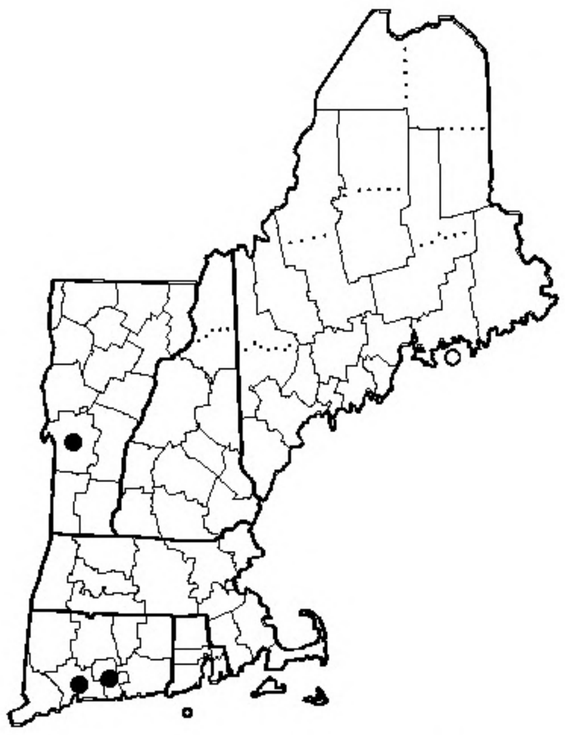


PLUCHEA CAMPHORATA

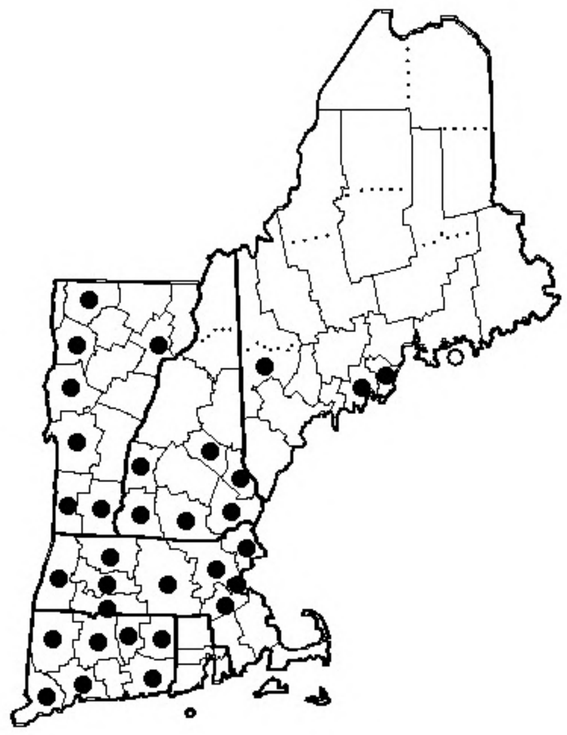
Figure 34. Distribution maps.



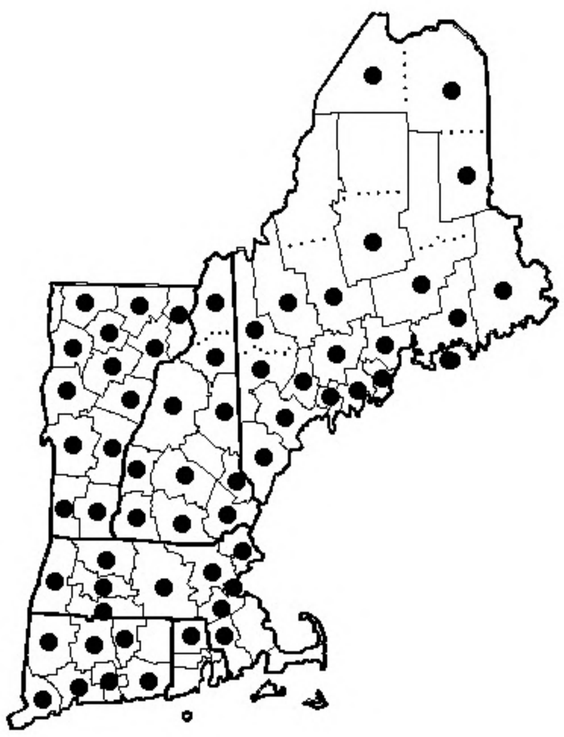
Pluchea odorata
var. *succulenta*



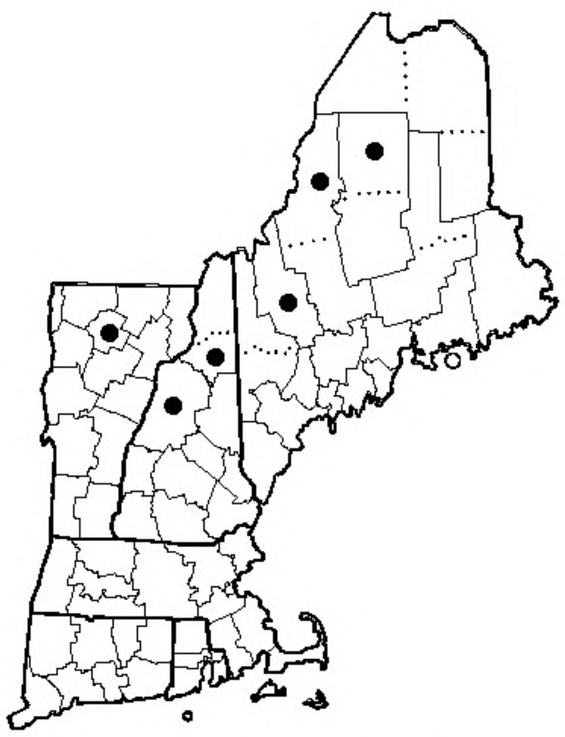
Polymnia canadensis



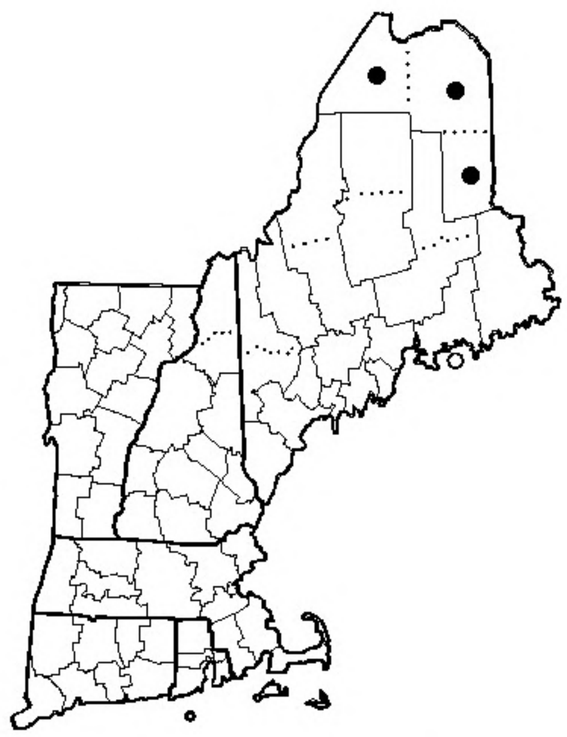
Prenanthes alba



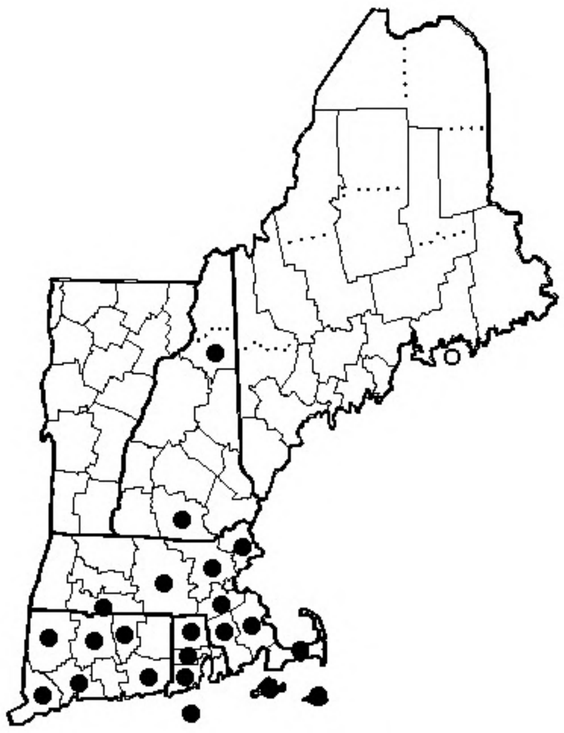
Prenanthes altissima



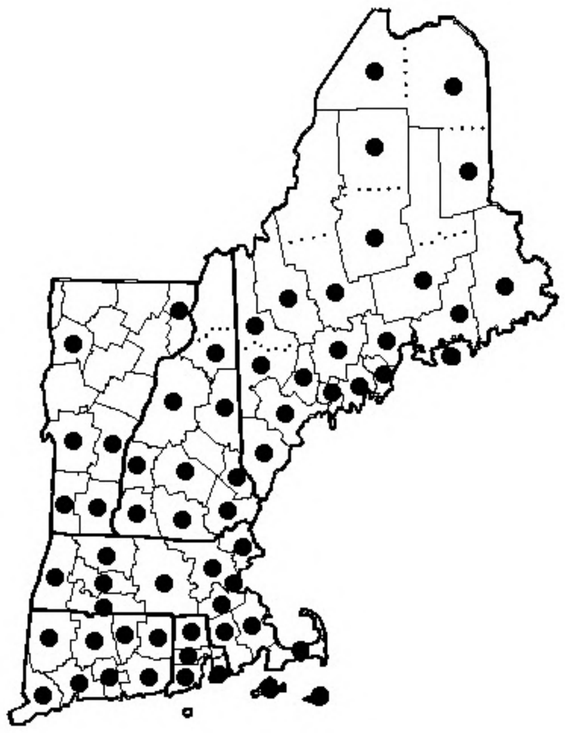
Prenanthes boottii



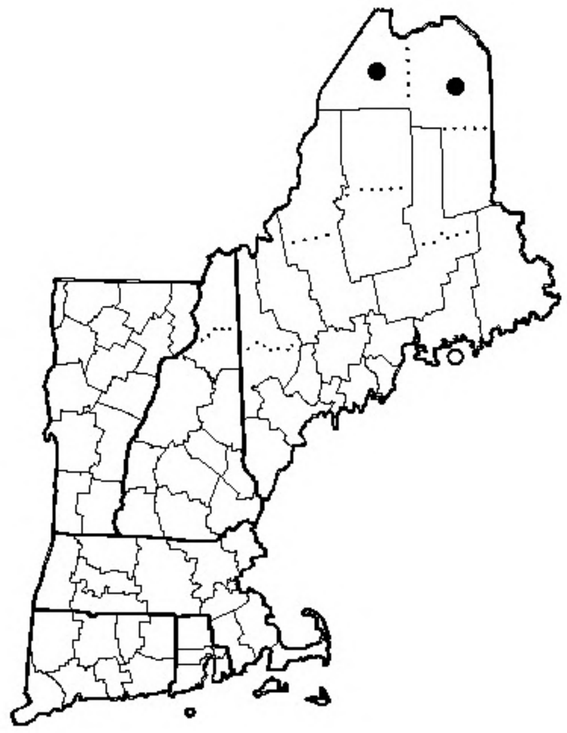
Prenanthes racemosa



Prenanthes serpentaria

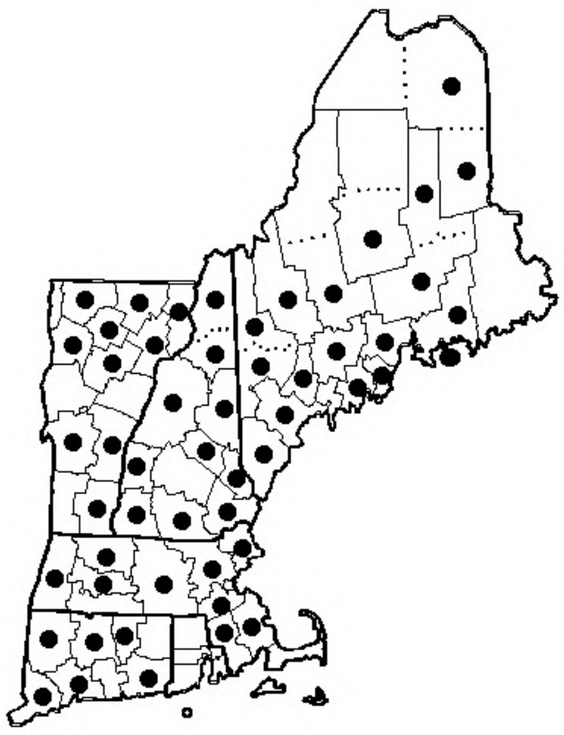


Prenanthes trifoliolata

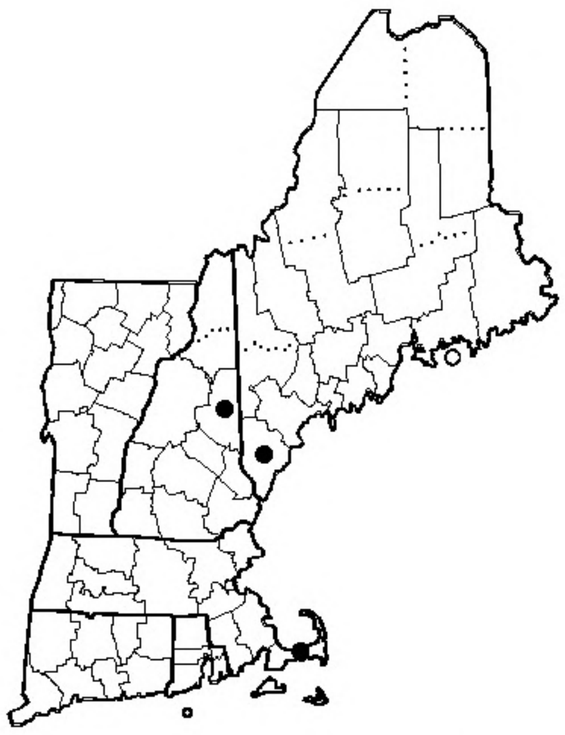


Prenanthes X *mainensis*

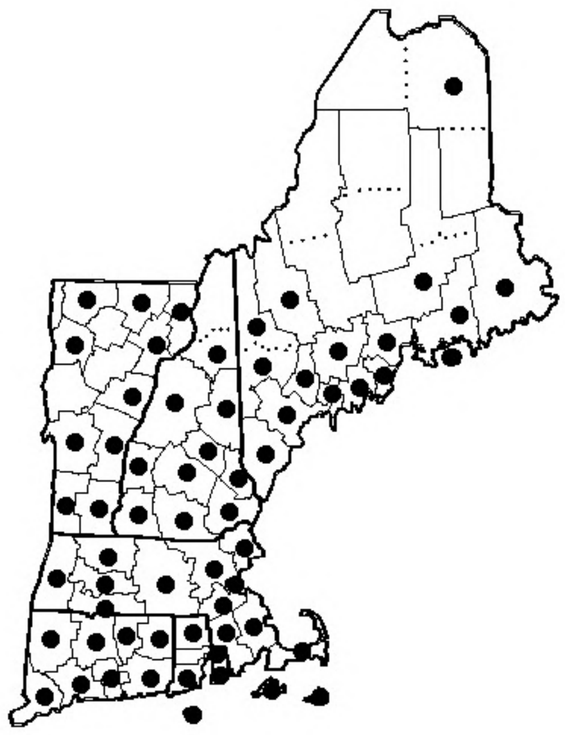
Figure 35. Distribution maps.



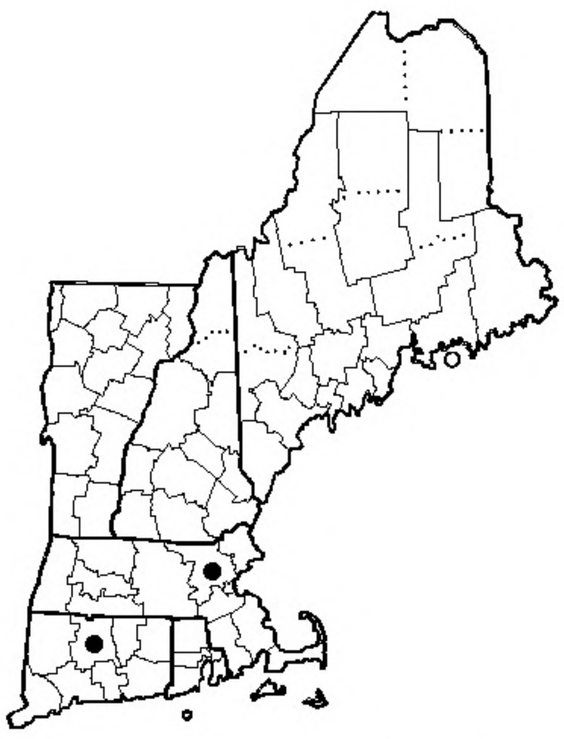
Pseudognaphalium macounii



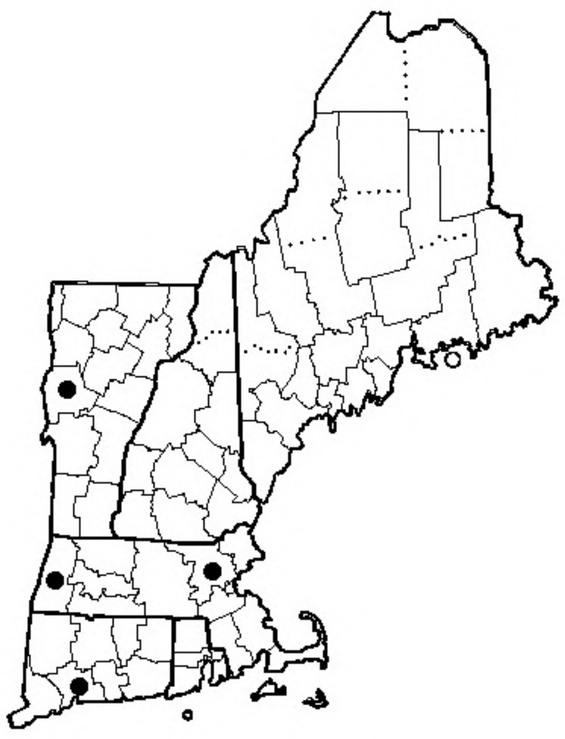
Pseudognaphalium micradenium



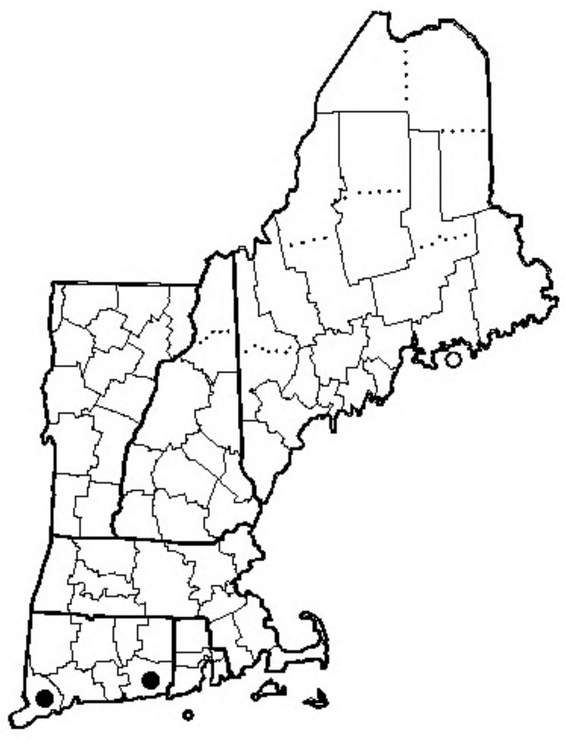
Pseudognaphalium obtusifolium



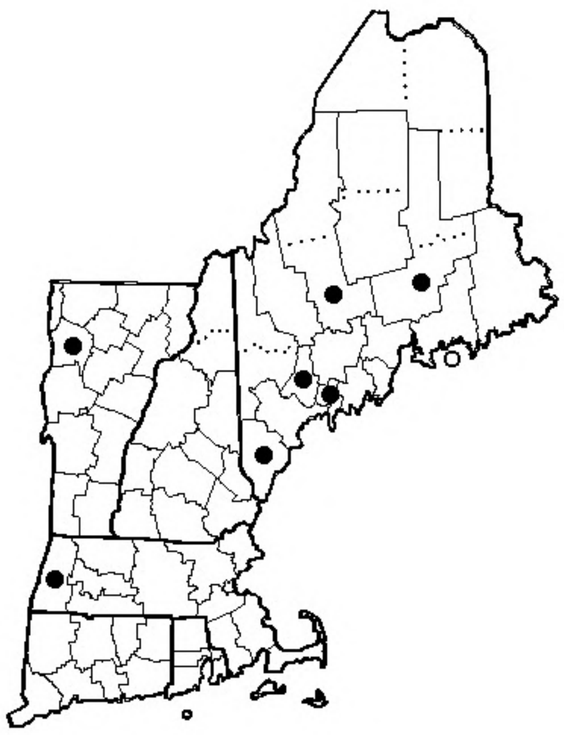
RATIBIDA COLUMNIFERA



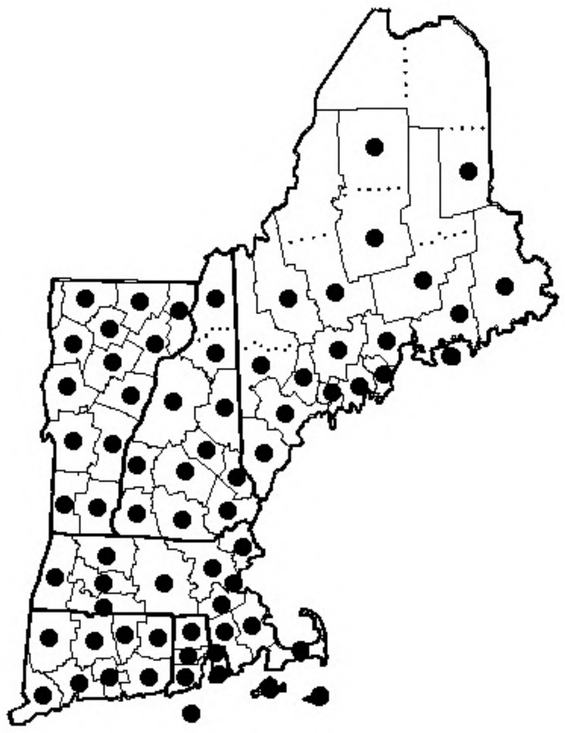
RATIBIDA PINNATA



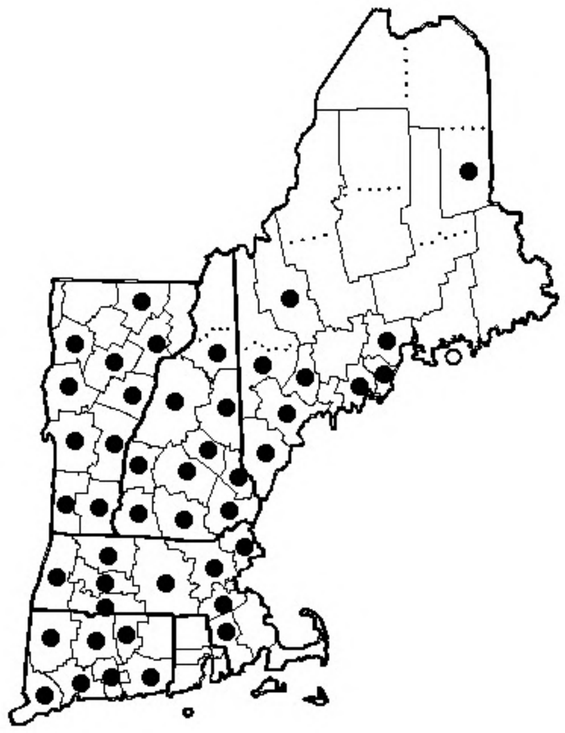
RUDBECKIA FULGIDA
var. *SPECIOSA*



Rudbeckia hirta
var. *hirta*

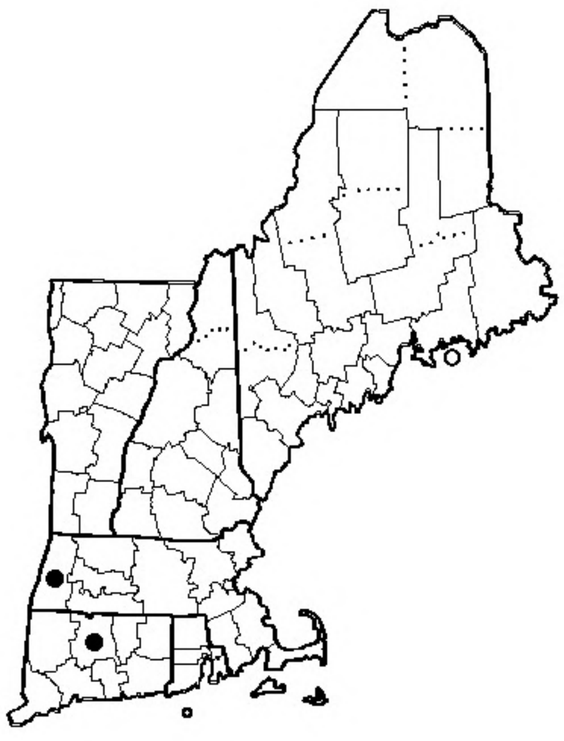


Rudbeckia hirta
var. *pulcherrima*

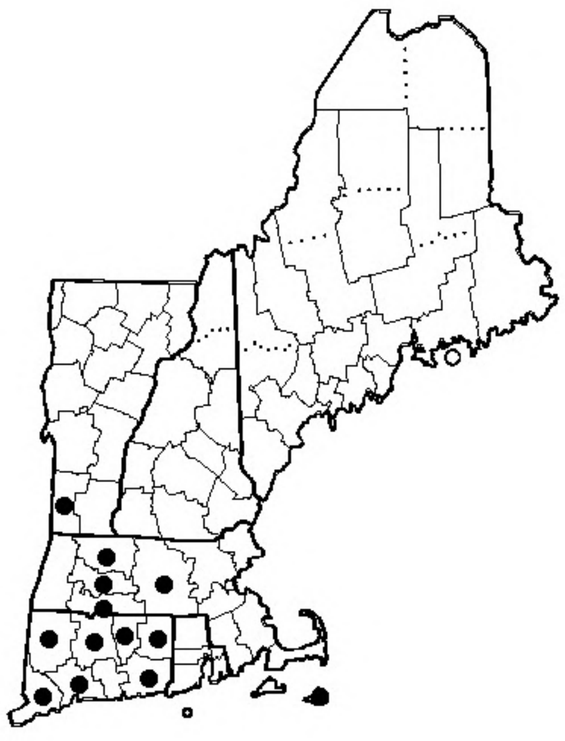


Rudbeckia laciniata
var. *laciniata*

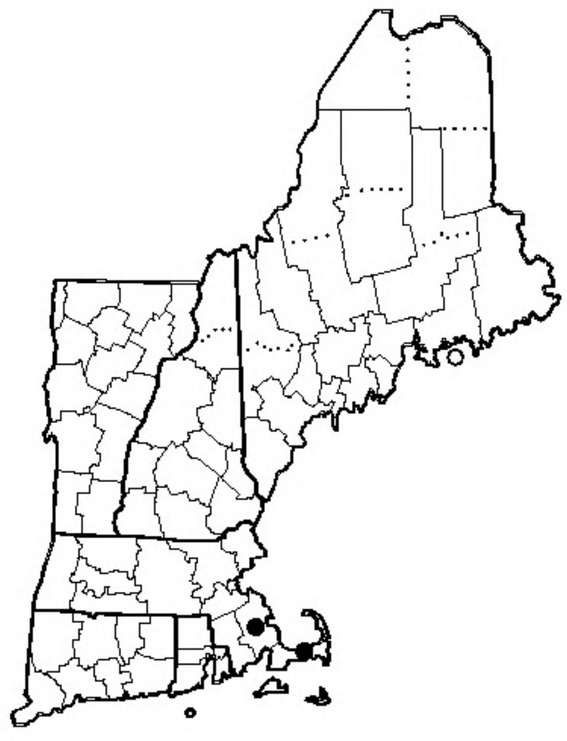
Figure 36. Distribution maps.



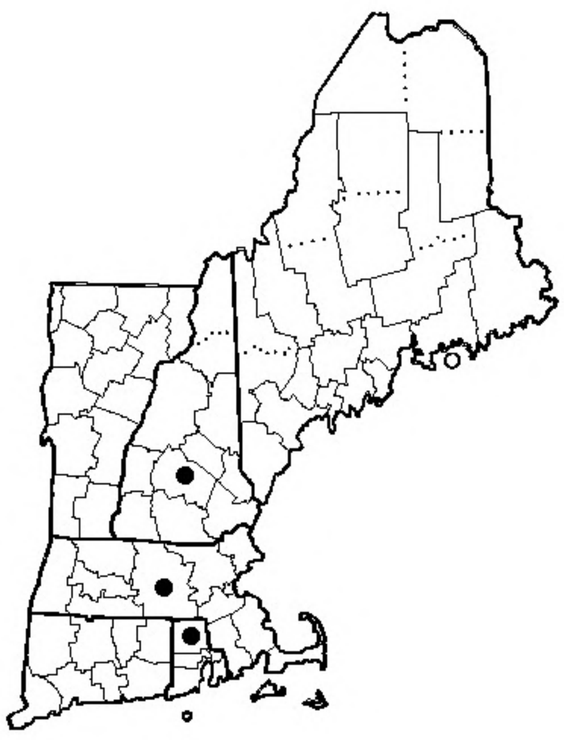
RUDBECKIA SUBTOMENTOSA



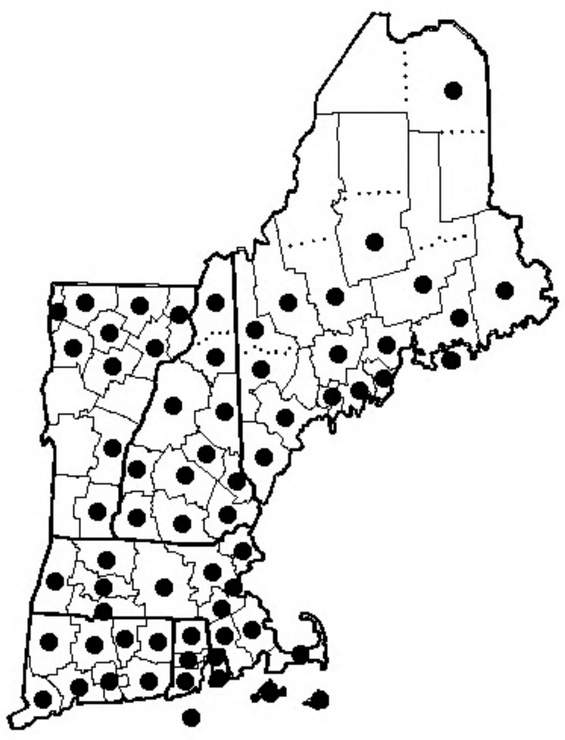
RUDBECKIA TRILOBA
var. *TRILOBA*



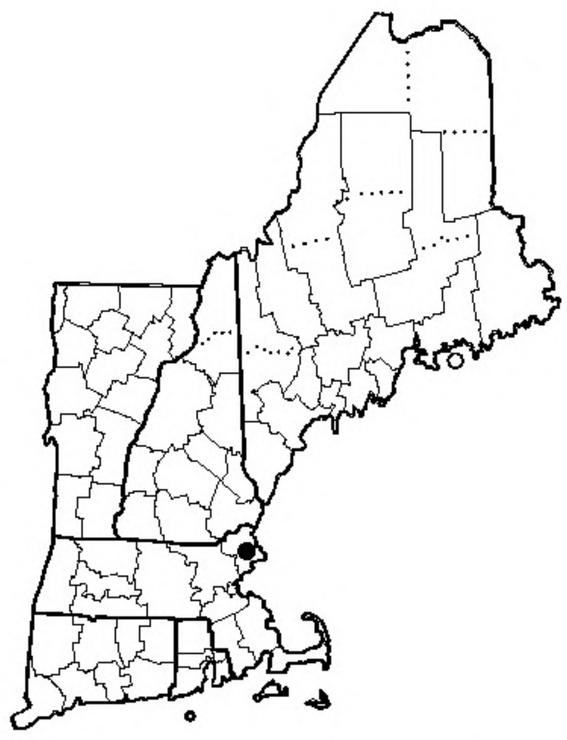
SANTOLINA CHAMAECYPARISSUS



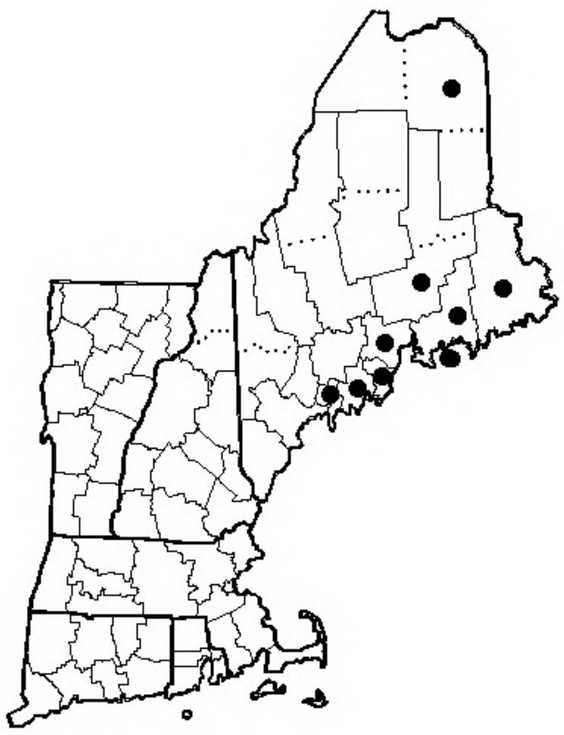
Scleroleρis uniflora



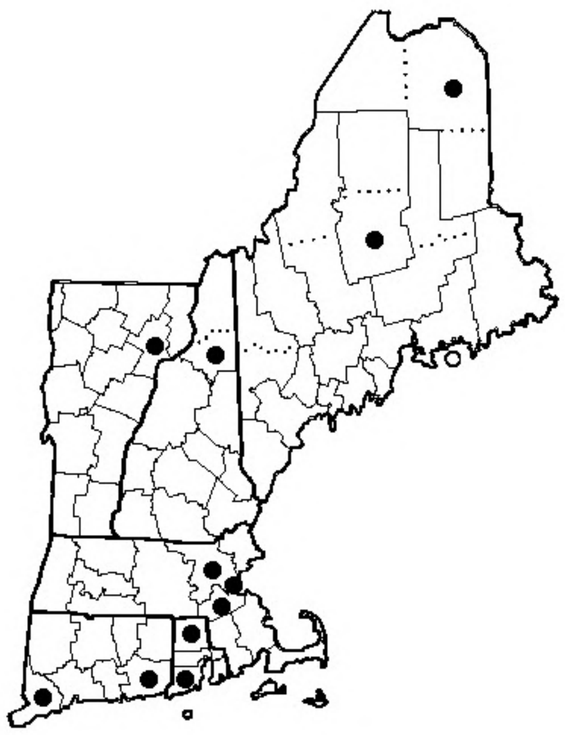
SCORZONEROIDES AUTUMNALIS



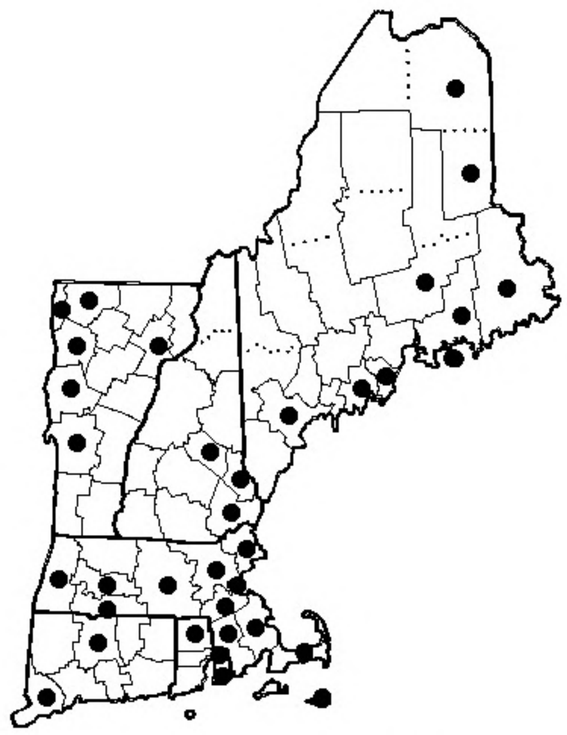
SENECIO EREMOPHILUS
var. *MACDOUGALII*



SENECIO SYLVATICUS

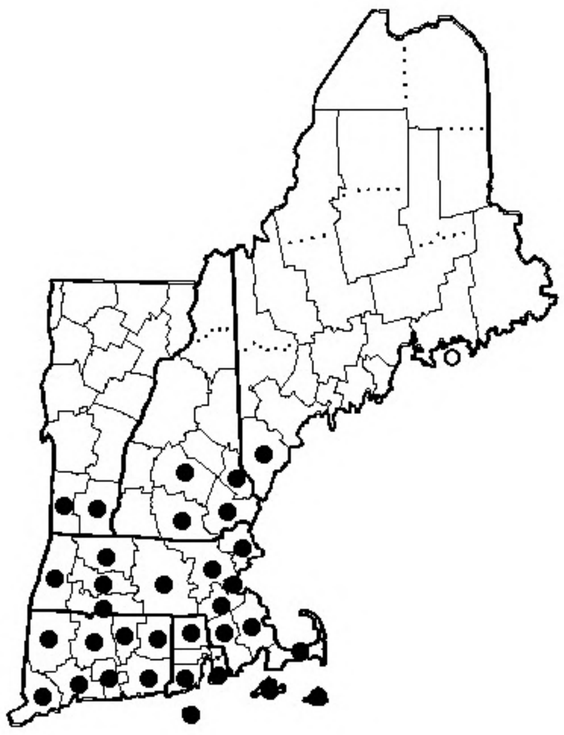


SENECIO VISCOSUS

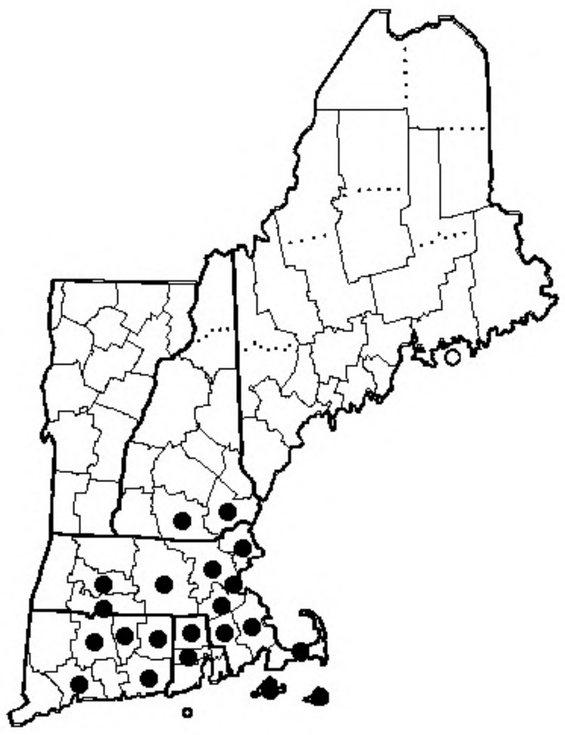


SENECIO VULGARIS

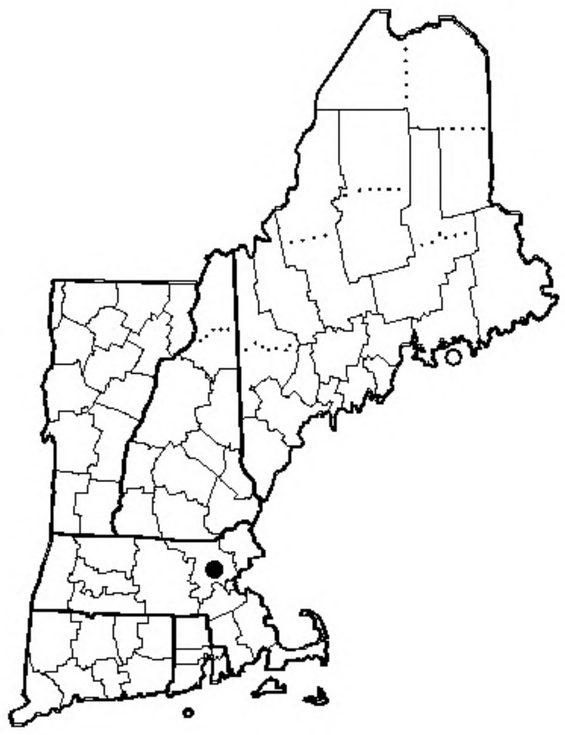
Figure 37. Distribution maps.



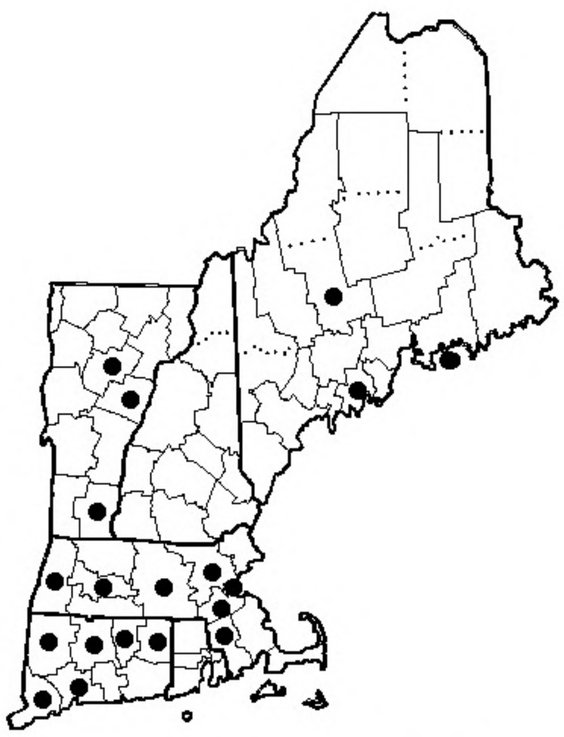
Sericocarpus asteroides



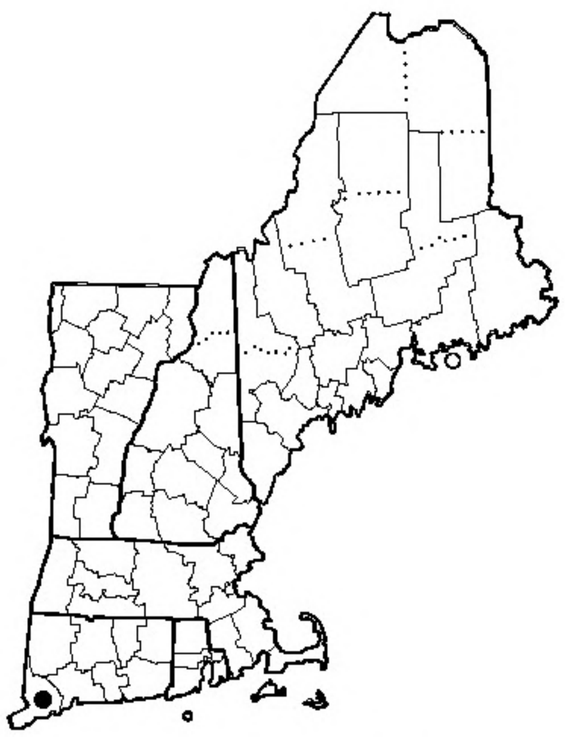
Sericocarpus linifolius



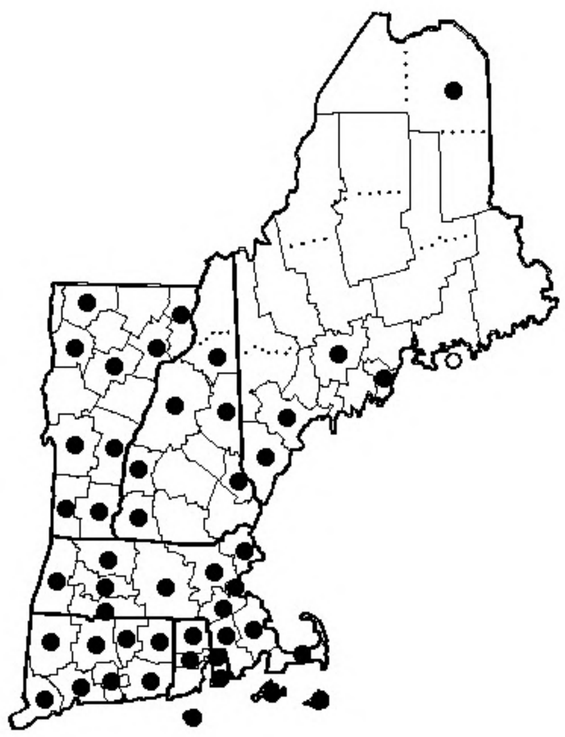
SIGESBECKIA JORULLENSIS



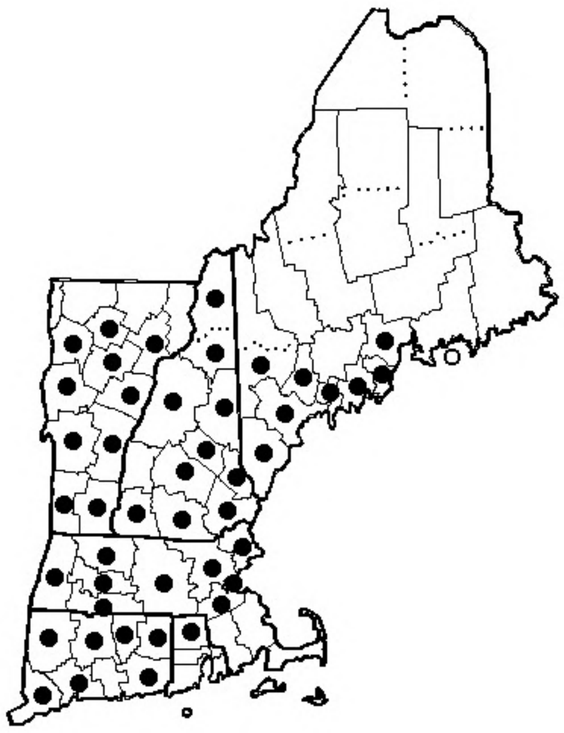
SILPHIUM PERFOLIATUM
var. *PERFOLIATUM*



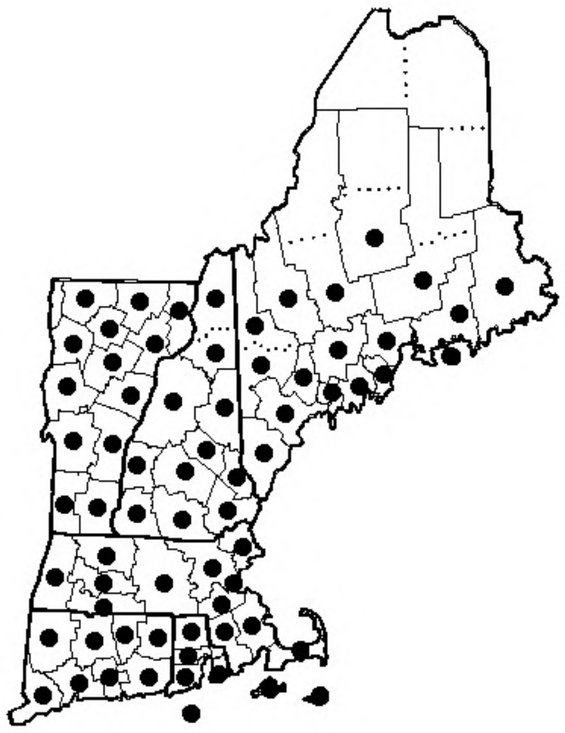
SILYBUM MARIANUM



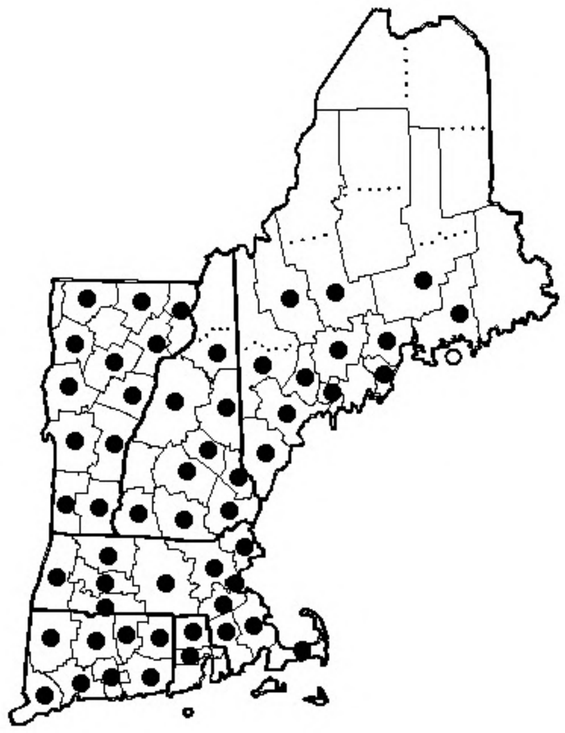
Solidago altissima
subsp. *altissima*



Solidago arguta
var. *arguta*

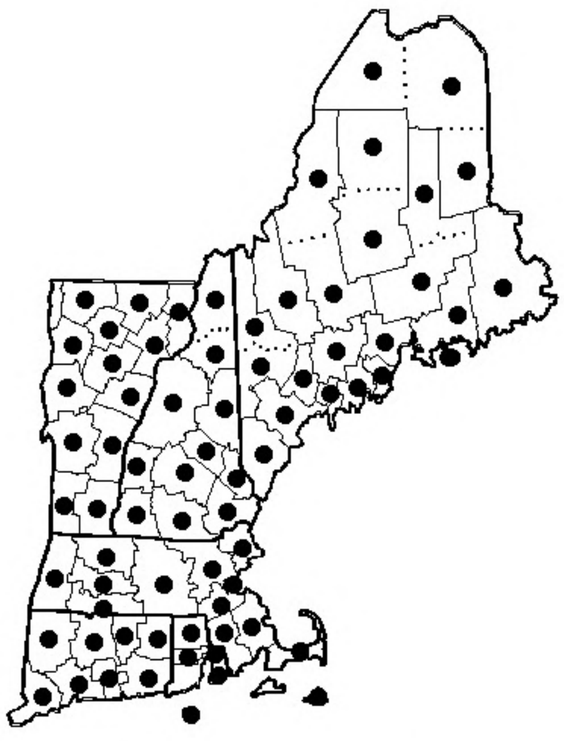


Solidago bicolor

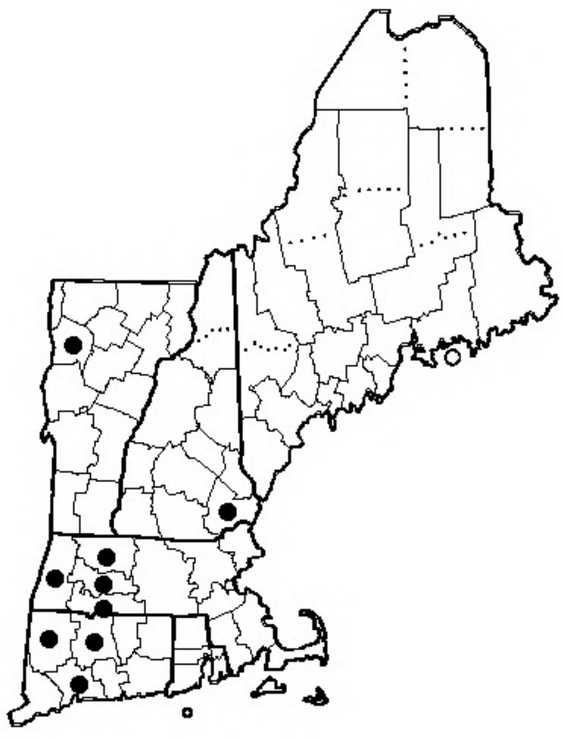


Solidago caesia
var. *caesia*

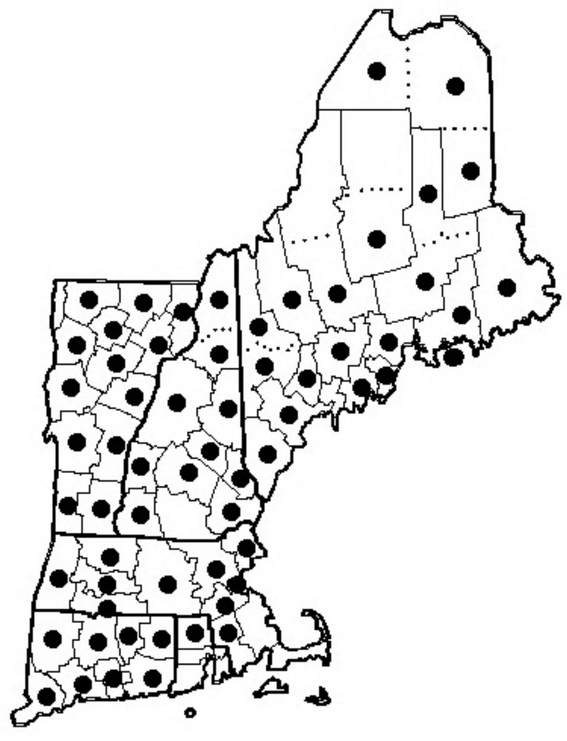
Figure 38. Distribution maps.



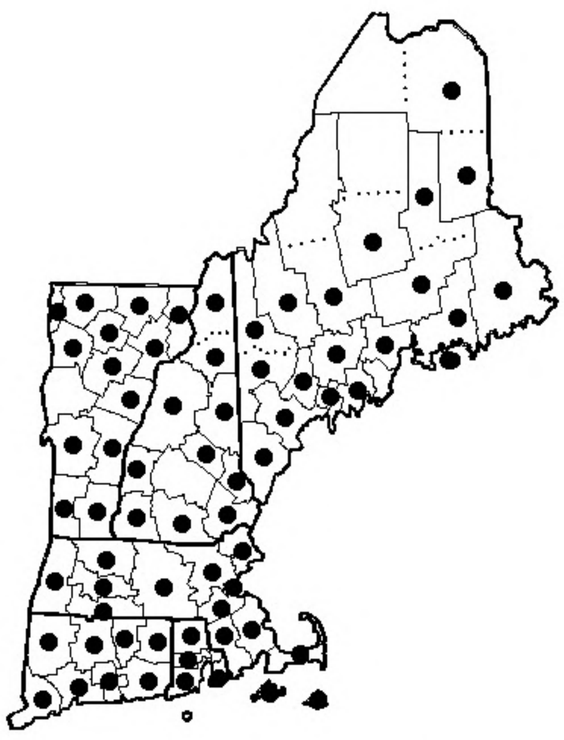
Solidago canadensis
var. *canadensis*



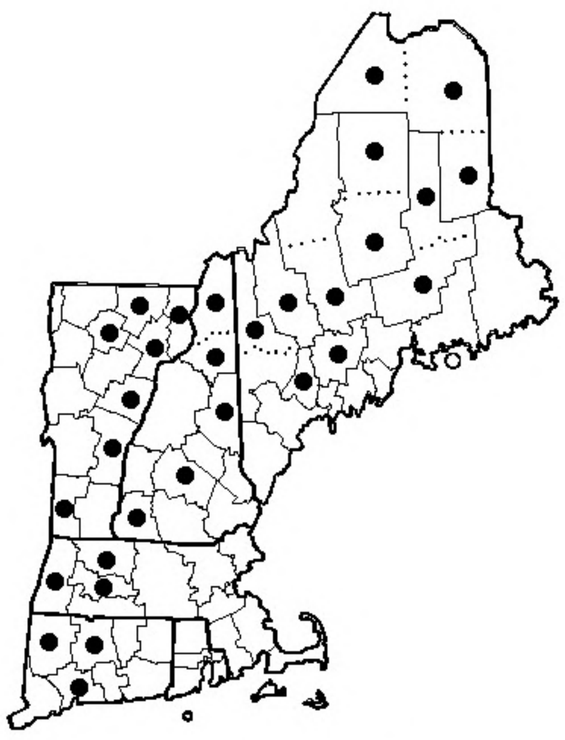
Solidago canadensis
var. *hargeri*



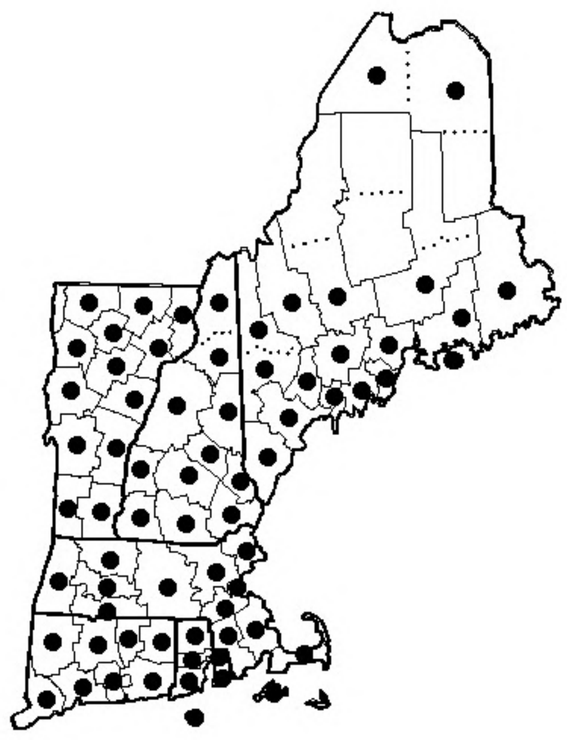
Solidago flexicaulis



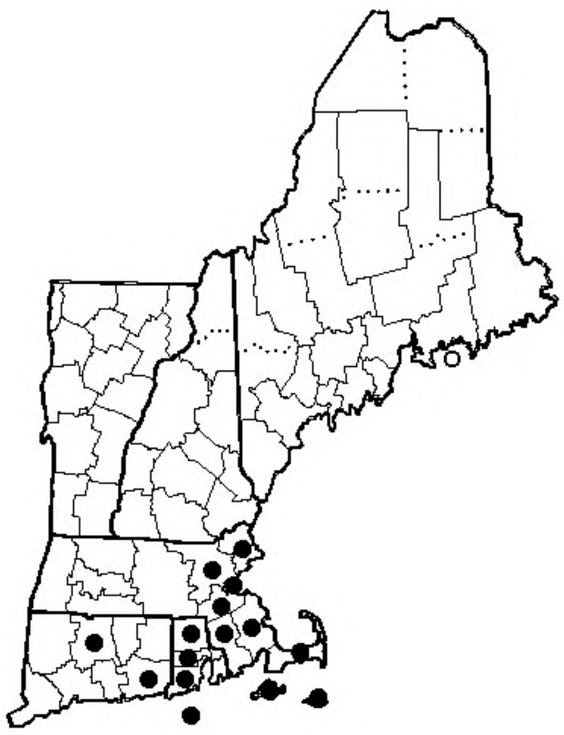
Solidago gigantea



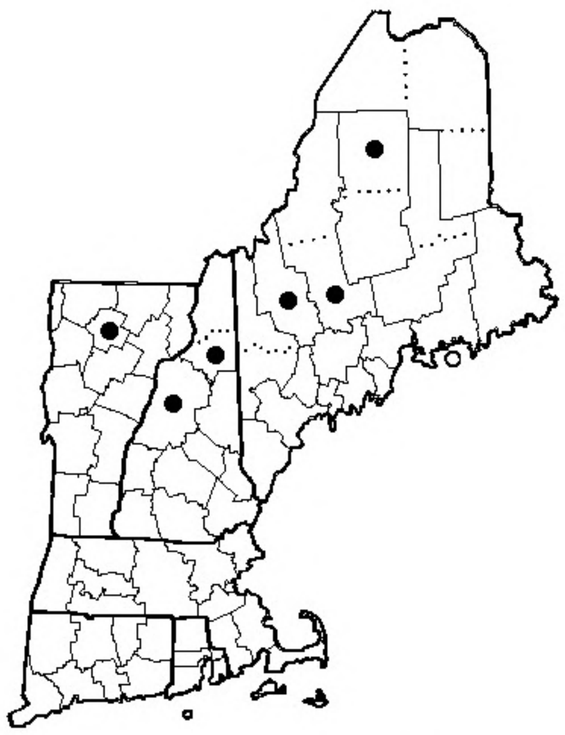
Solidago hispida



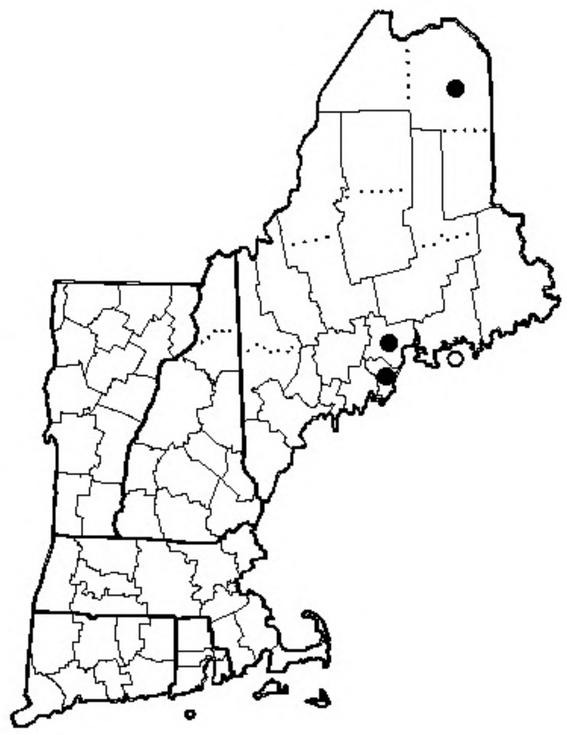
Solidago juncea



Solidago latissimifolia

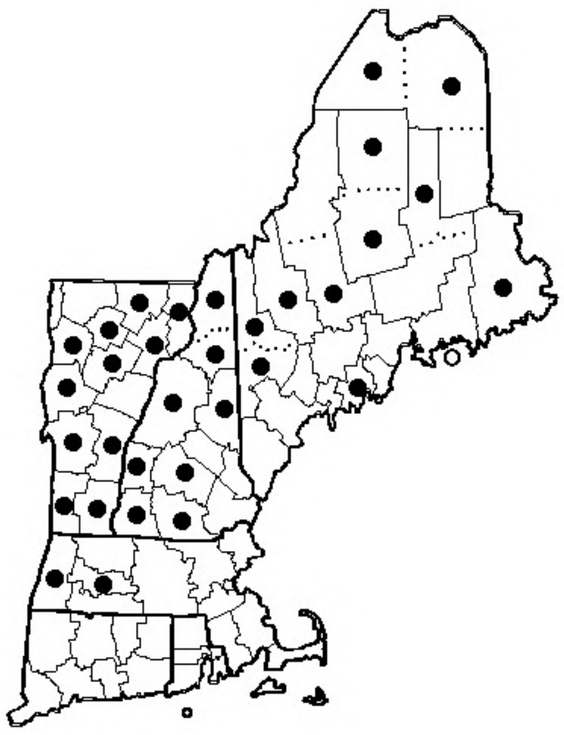


Solidago leiocarpa

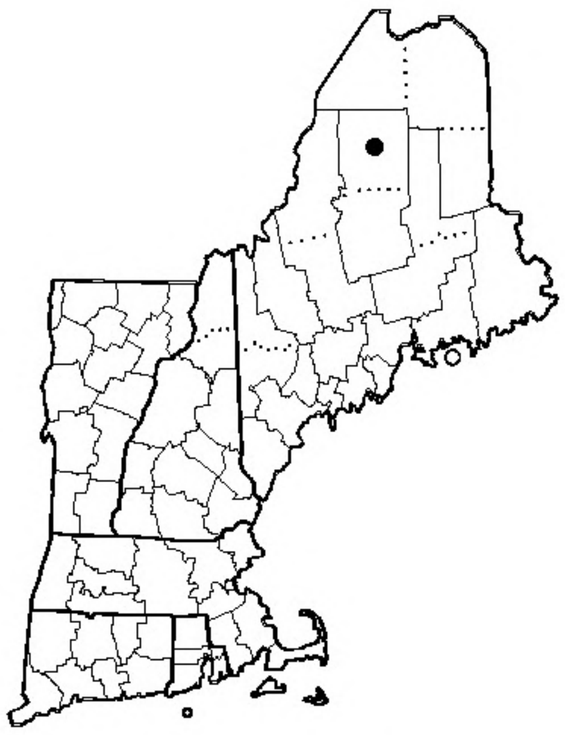


Solidago lepida
subsp. *fallax*

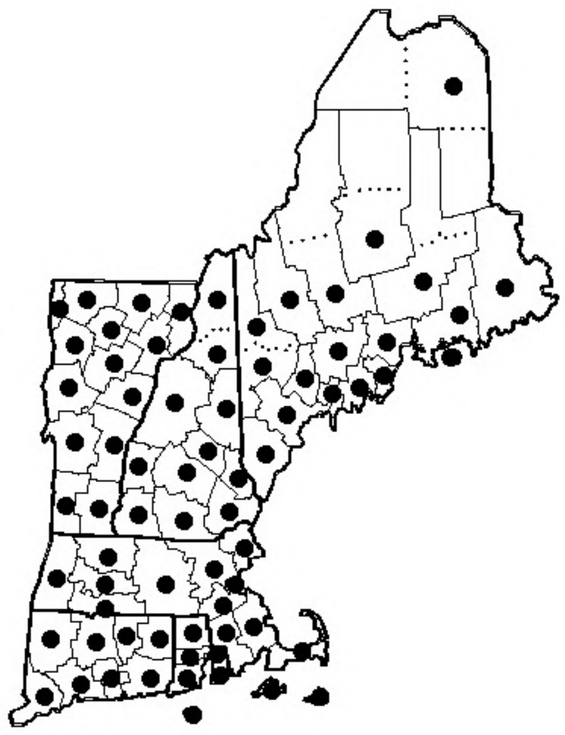
Figure 39. Distribution maps.



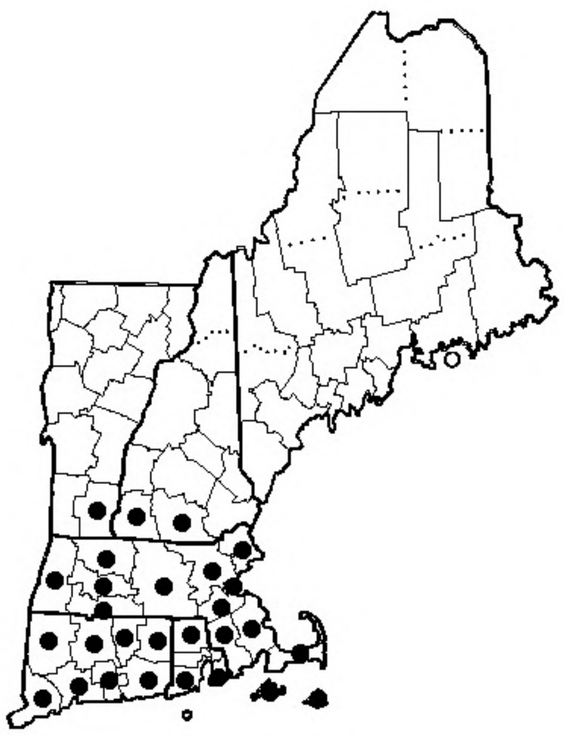
Solidago macrophylla



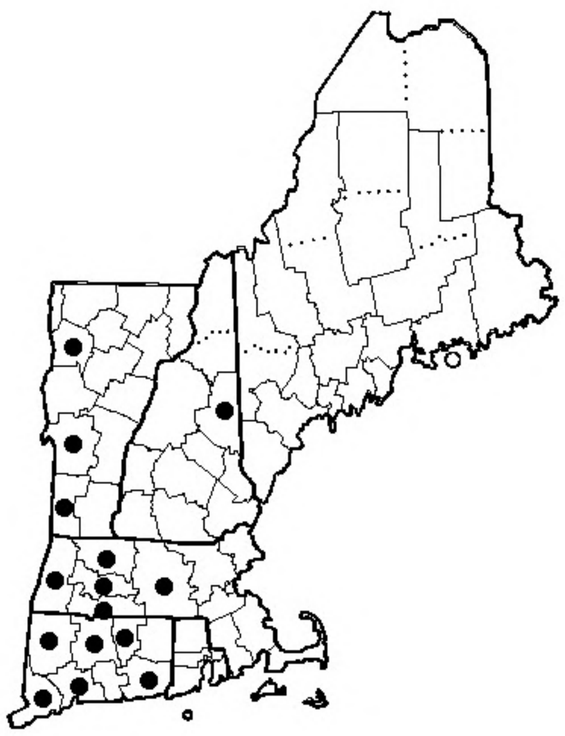
Solidago multiradiata



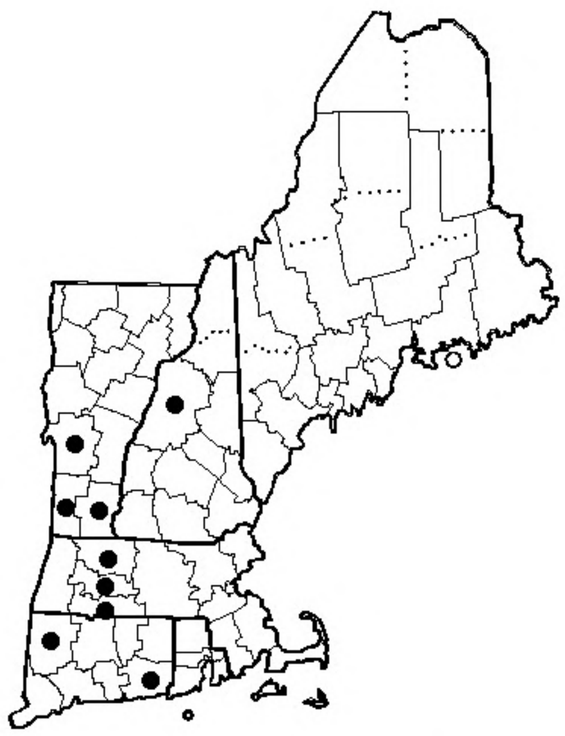
Solidago nemoralis
subsp. *nemoralis*



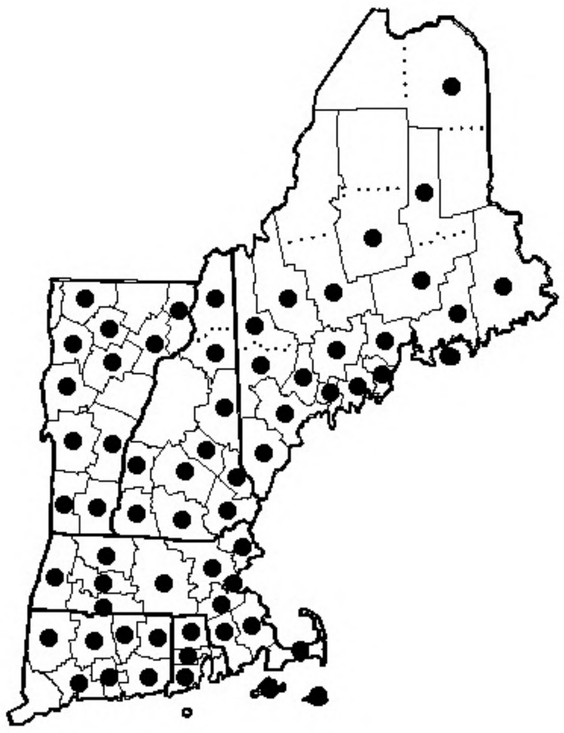
Solidago odora
subsp. *odora*



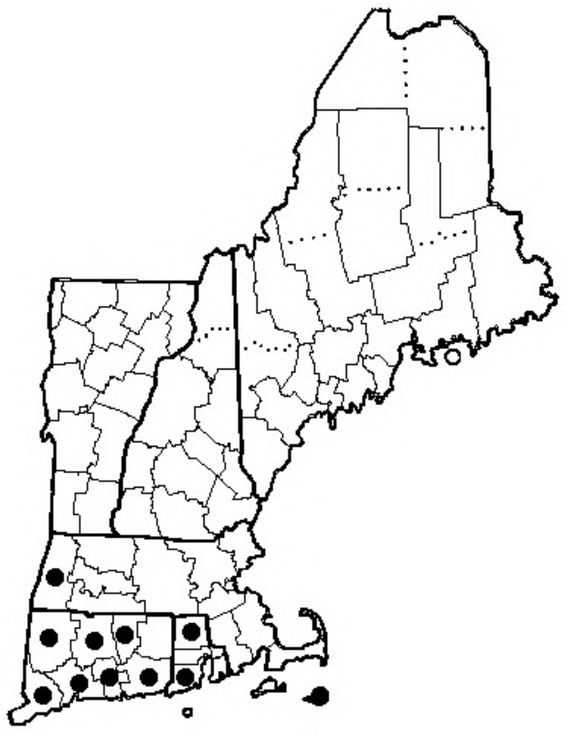
Solidago patula
subsp. *patula*



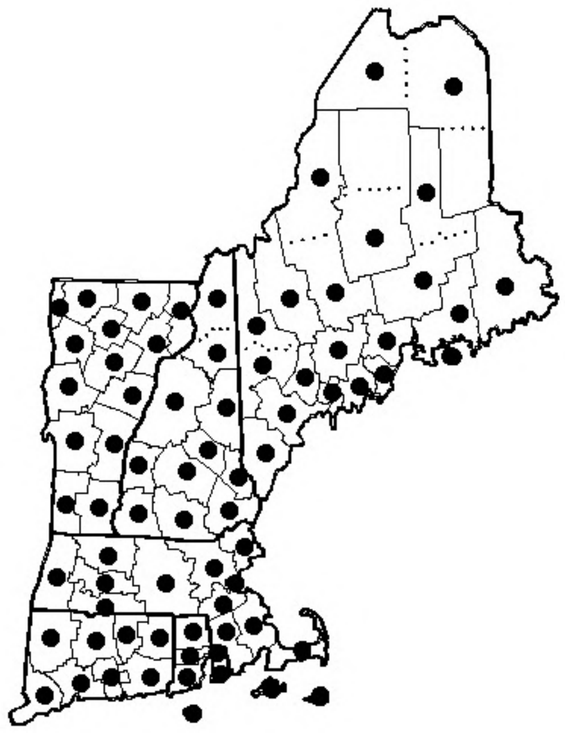
Solidago ptarmicoides



Solidago puberula
subsp. *puberula*

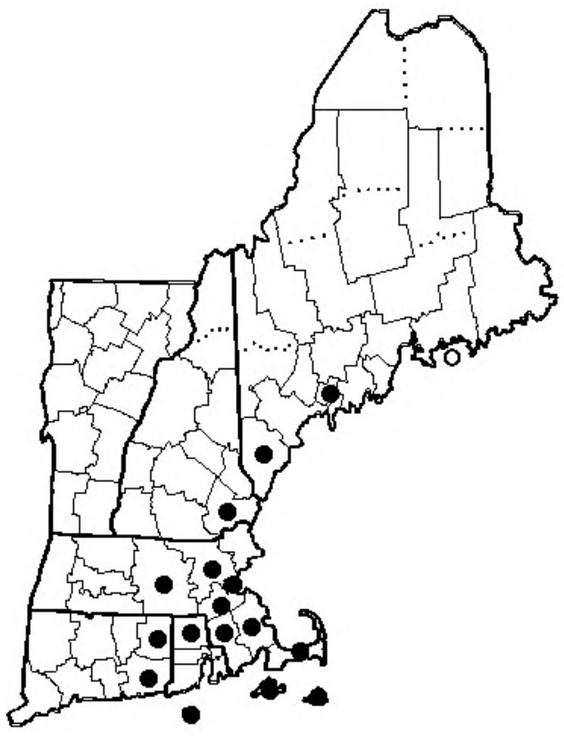


Solidago rigida
subsp. *rigida*

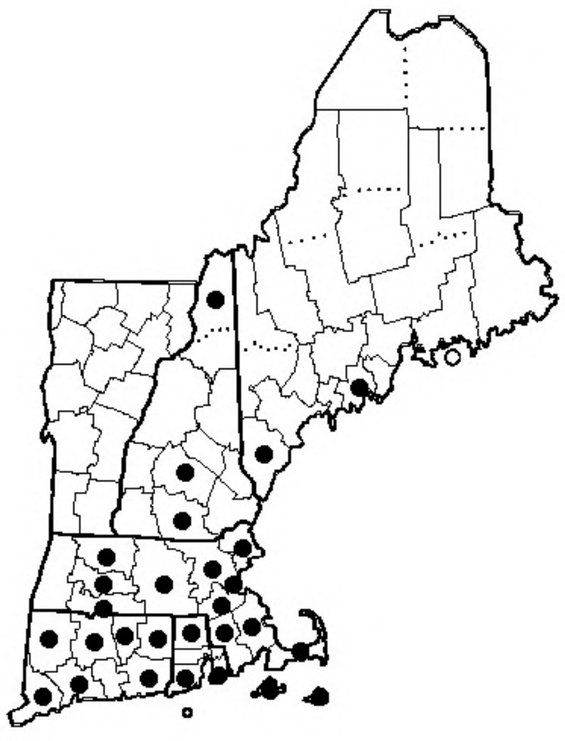


Solidago rugosa
var. *rugosa*

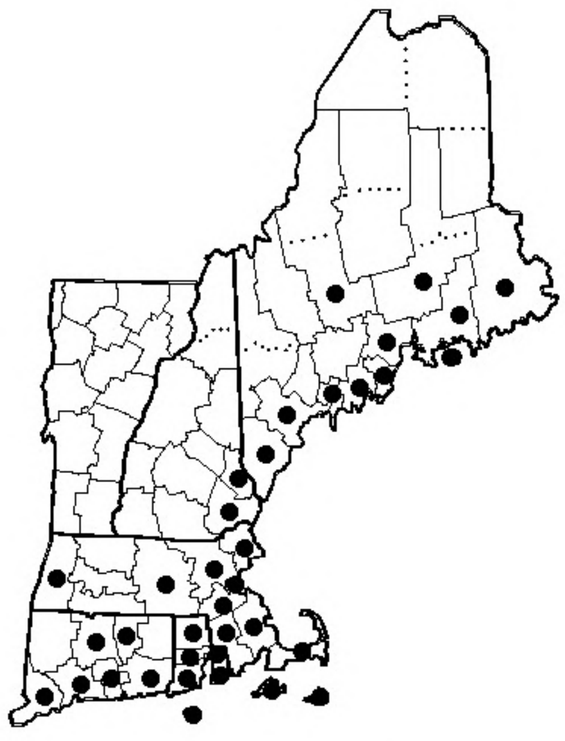
Figure 40. Distribution maps.



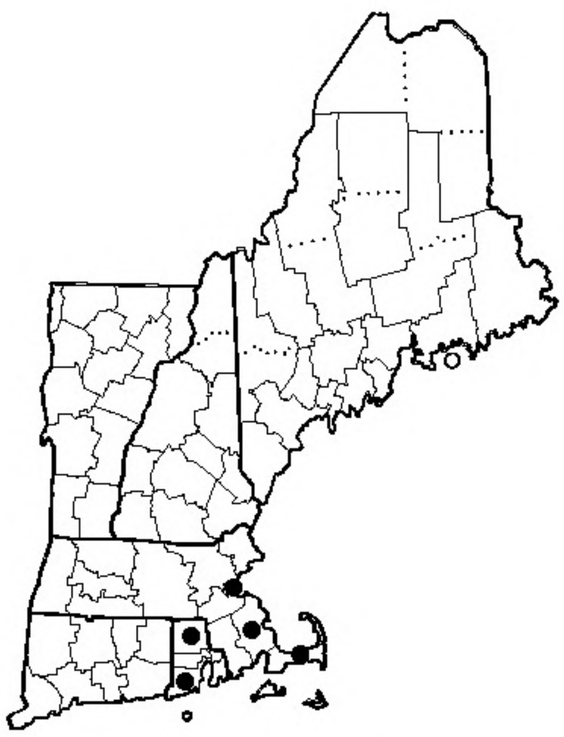
Solidago rugosa
var. *sphagnophila*



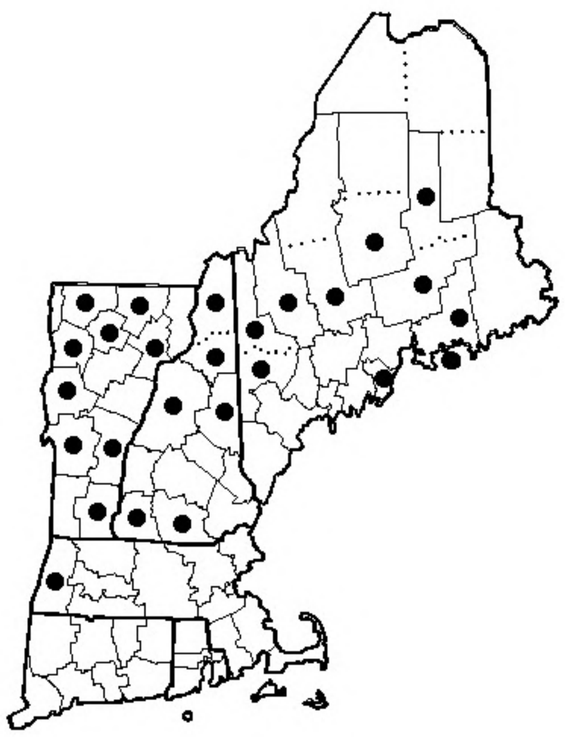
Solidago rugosa
var. *aspera*



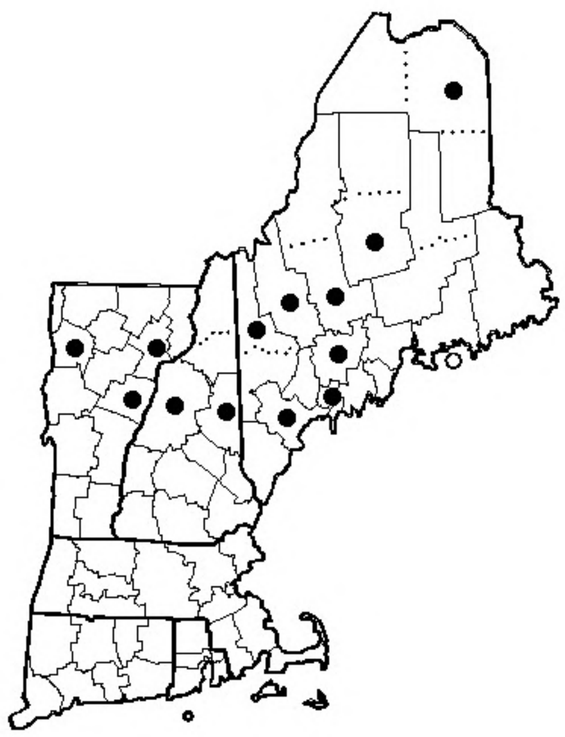
Solidago sempervirens
subsp. *sempervirens*



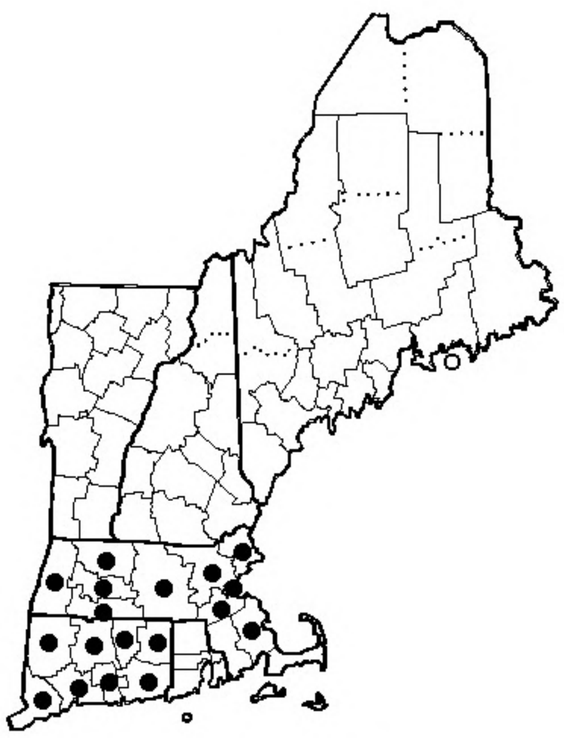
Solidago sempervirens
subsp. *mexicana*



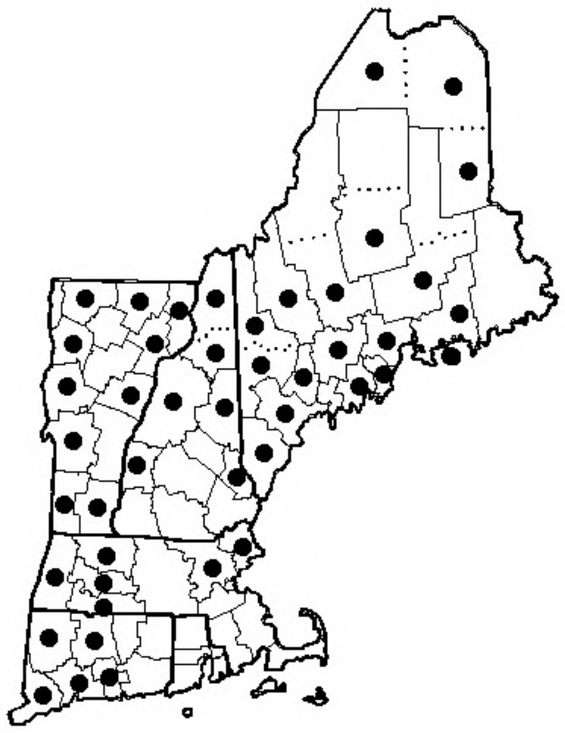
Solidago simplex
var. *monticola*



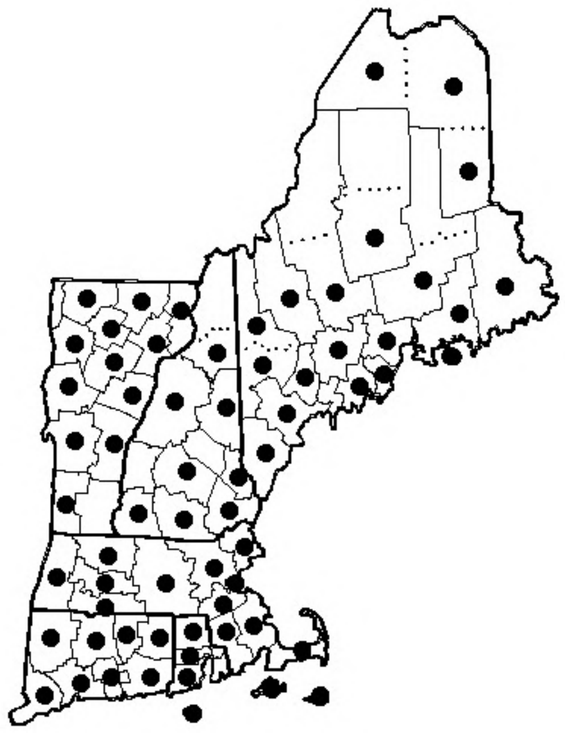
Solidago simplex
var. *racemosa*



Solidago speciosa
var. *speciosa*

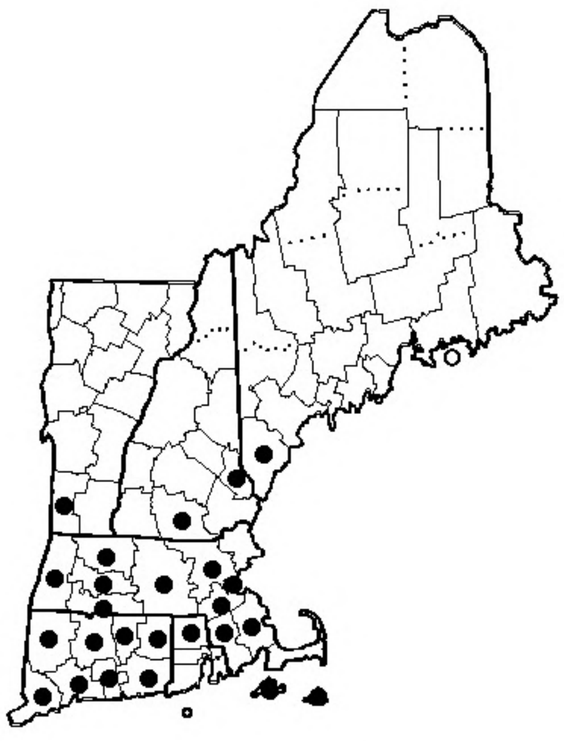


Solidago squarrosa

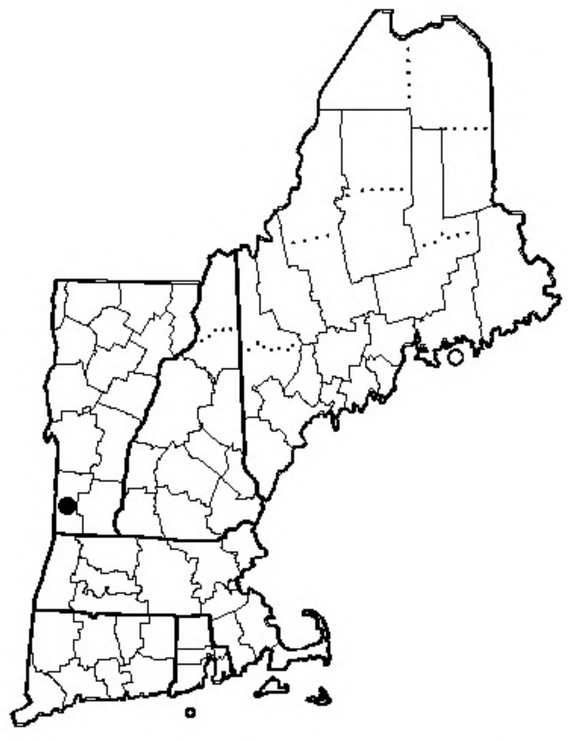


Solidago uliginosa

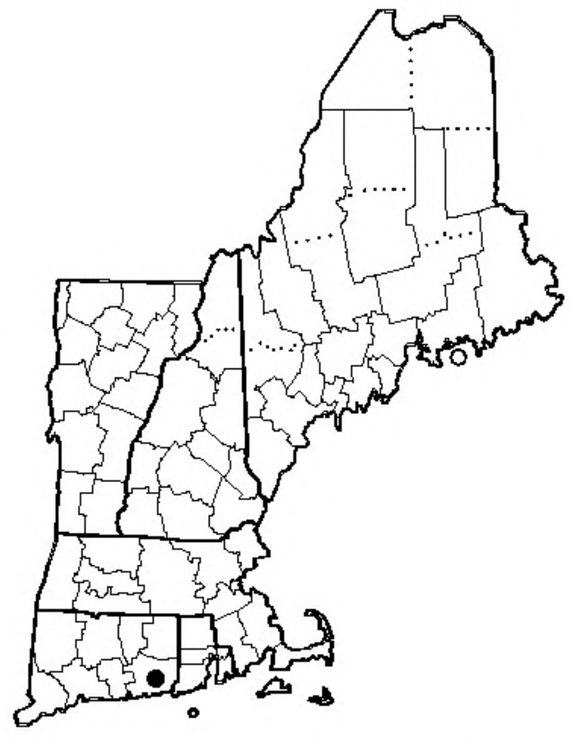
Figure 41. Distribution maps.



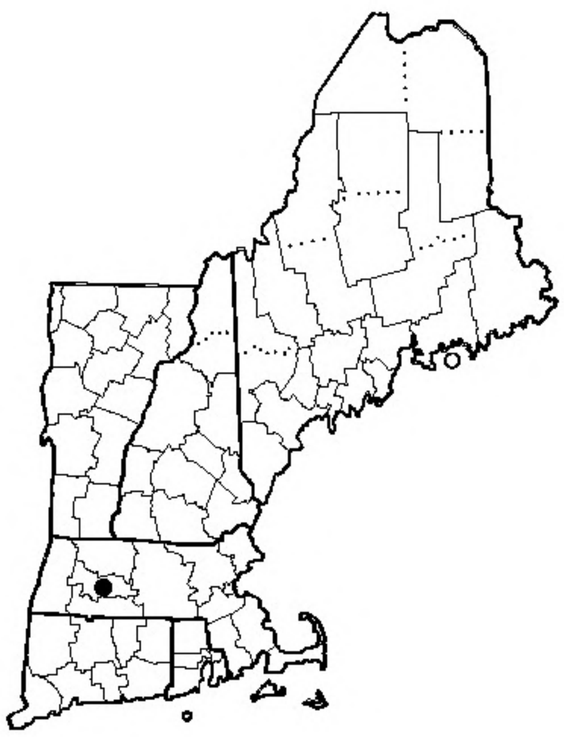
Solidago ulmifolia
var. *ulmifolia*



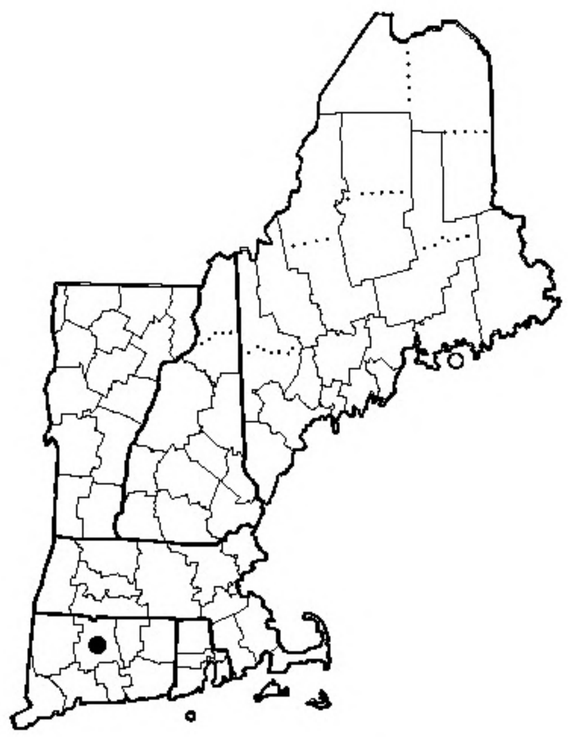
Solidago altissima subsp. *altissima*
X *S. rugosa* var. *rugosa*



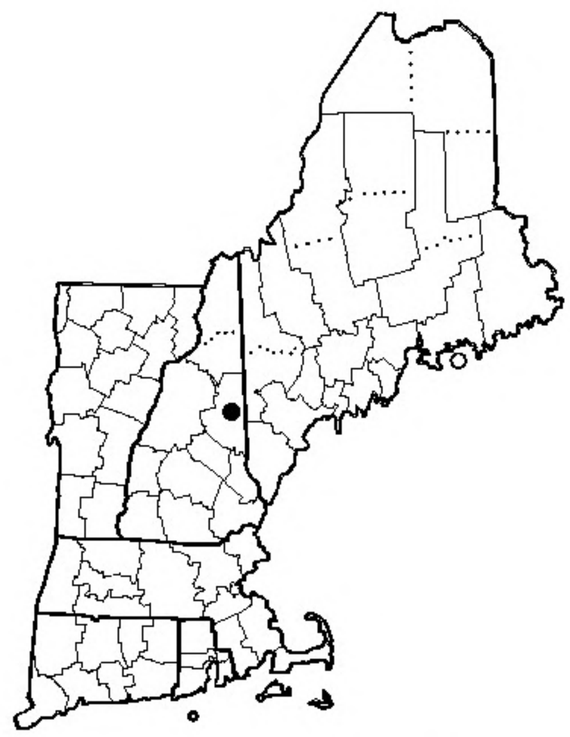
Solidago altissima subsp. *altissima*
X *S. sempervirens* subsp. *sempervirens*



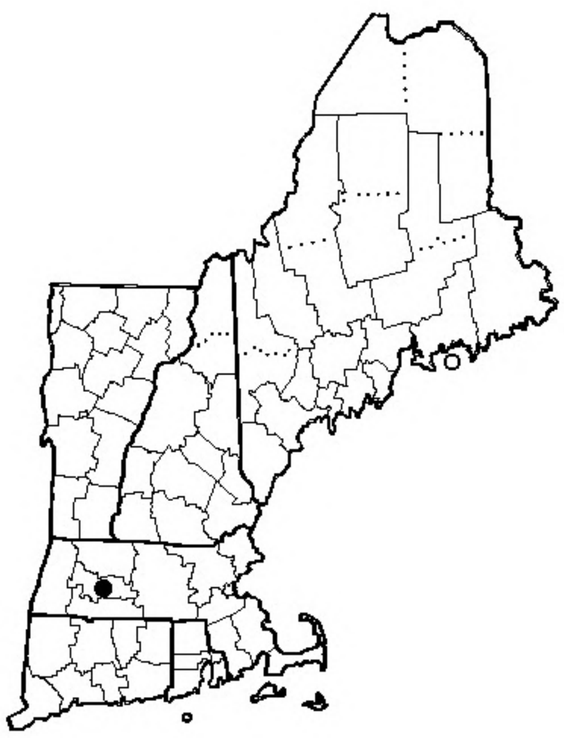
Solidago arguta var. *arguta*
X *S. bicolor*



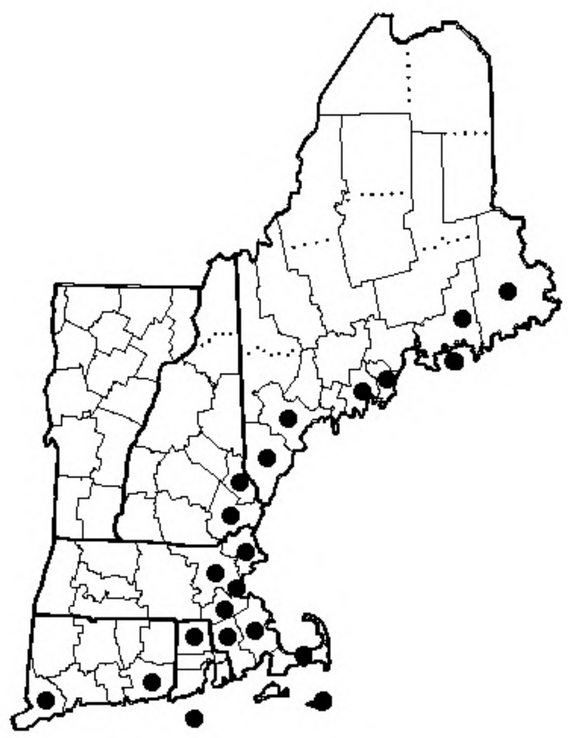
Solidago arguta var. *arguta*
X *S. juncea*



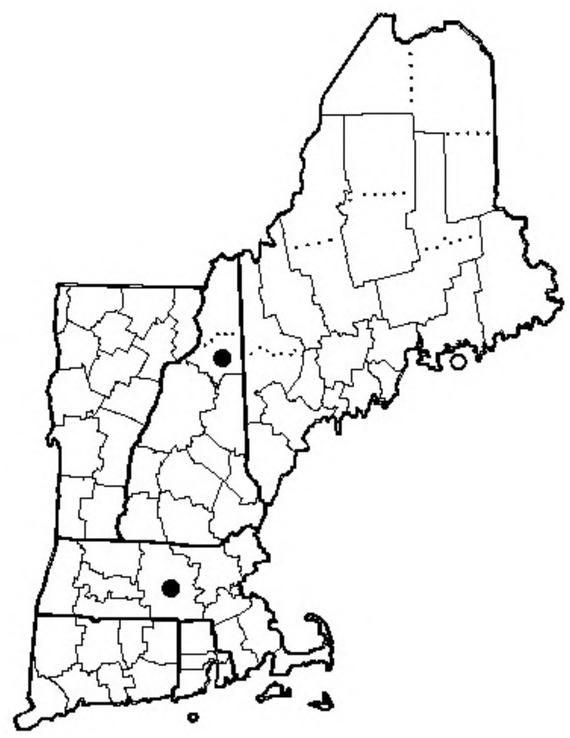
Solidago arguta var. *arguta*
X *S. nemoralis* subsp. *nemoralis*



Solidago arguta var. *arguta*
X *S. patula* subsp. *patula*

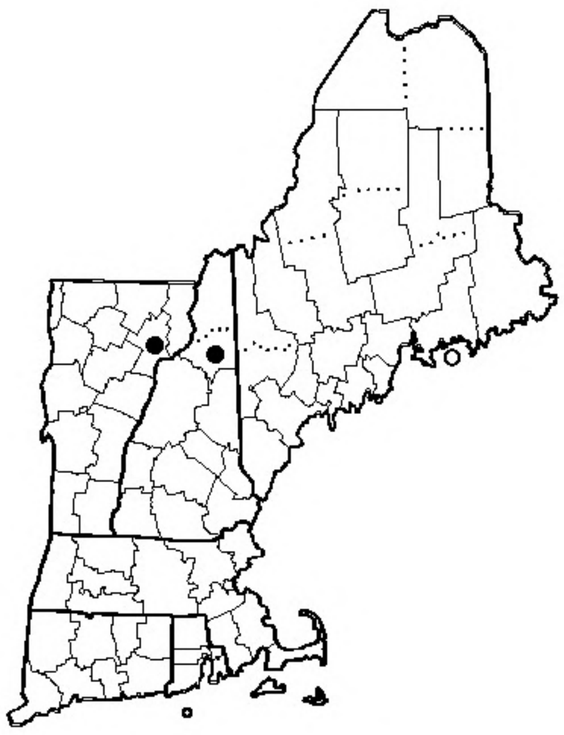


Solidago X *asperula*

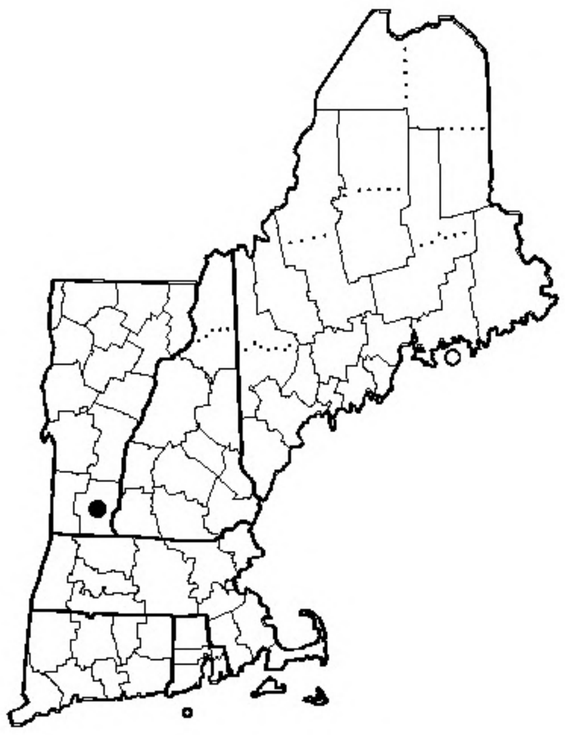


Solidago bicolor
X *S. caesia* var. *caesia*

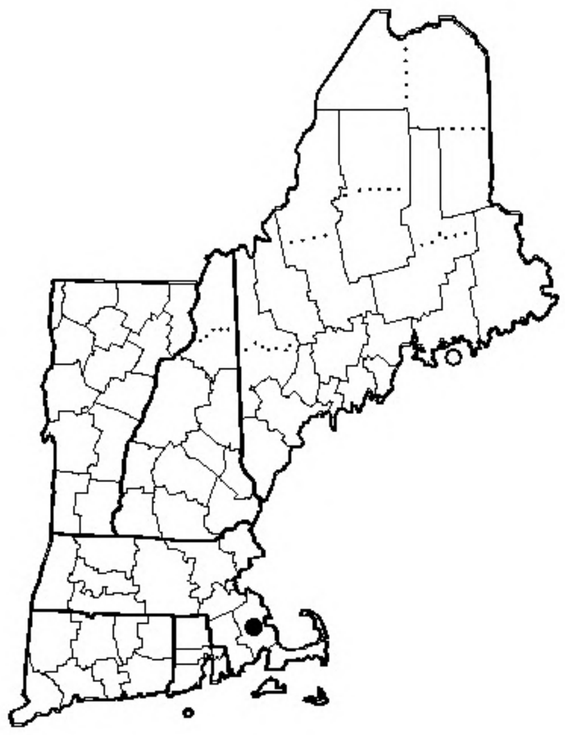
Figure 42. Distribution maps.



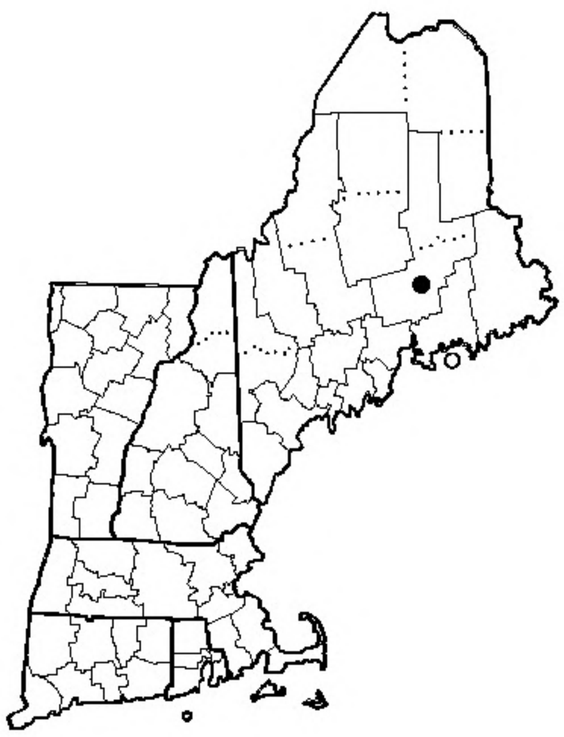
Solidago bicolor
X *S. hispida*



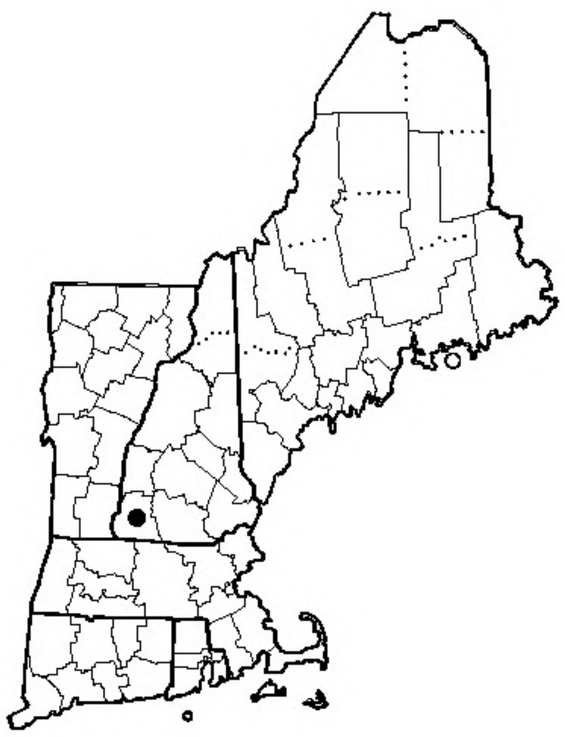
Solidago bicolor
X *S. nemoralis* subsp. *nemoralis*



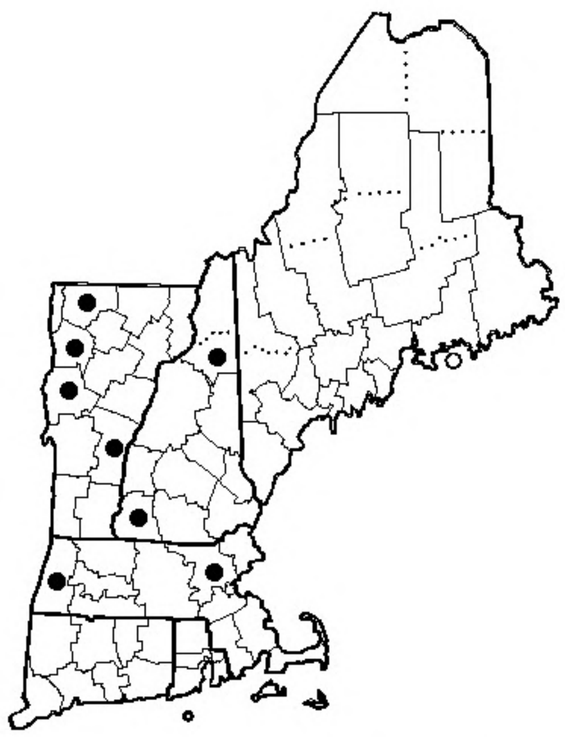
Solidago bicolor
X *S. odora* subsp. *odora*



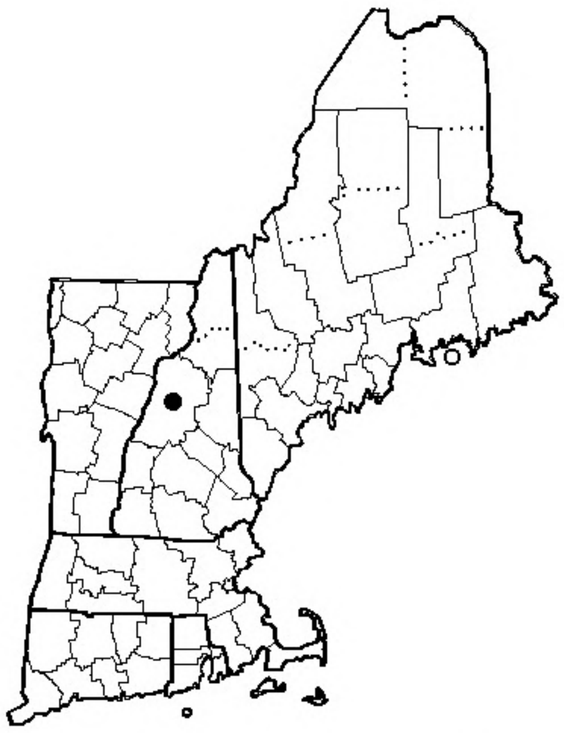
Solidago bicolor
X *S. puberula* subsp. *puberula*



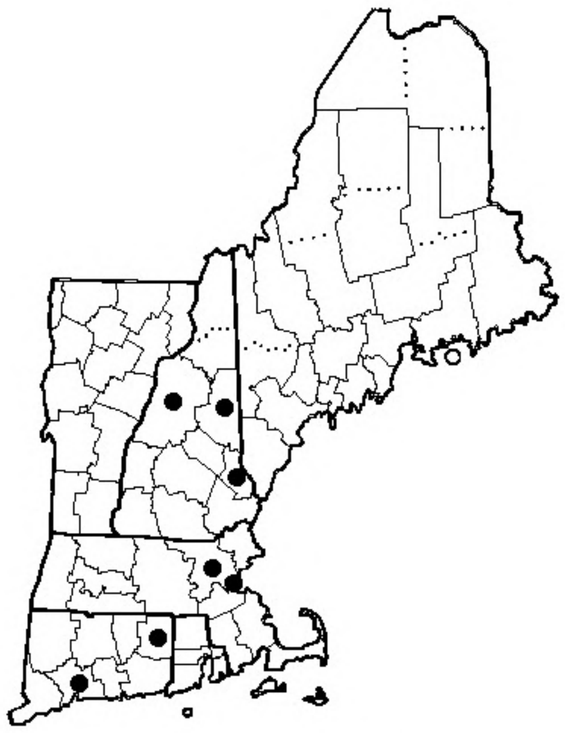
Solidago bicolor
X *S. rugosa* var. *rugosa*



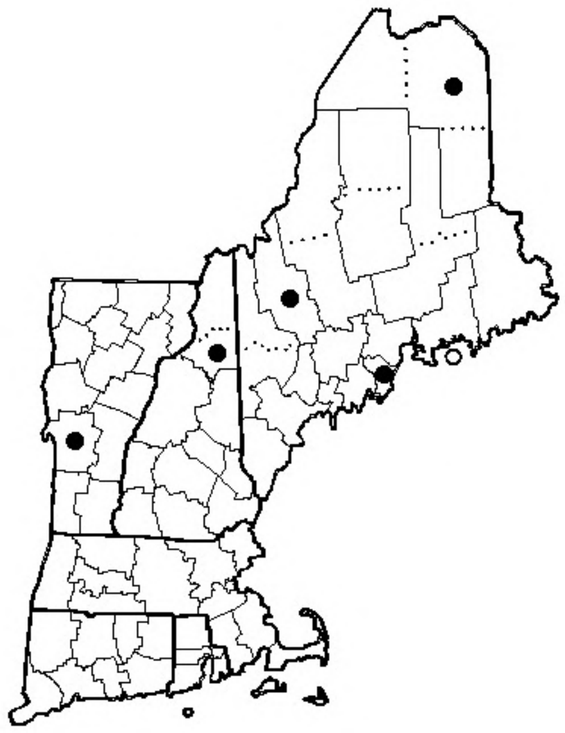
Solidago caesia var. *caesia*
X *S. flexicaulis*



Solidago caesia var. *caesia*
X *S. juncea*

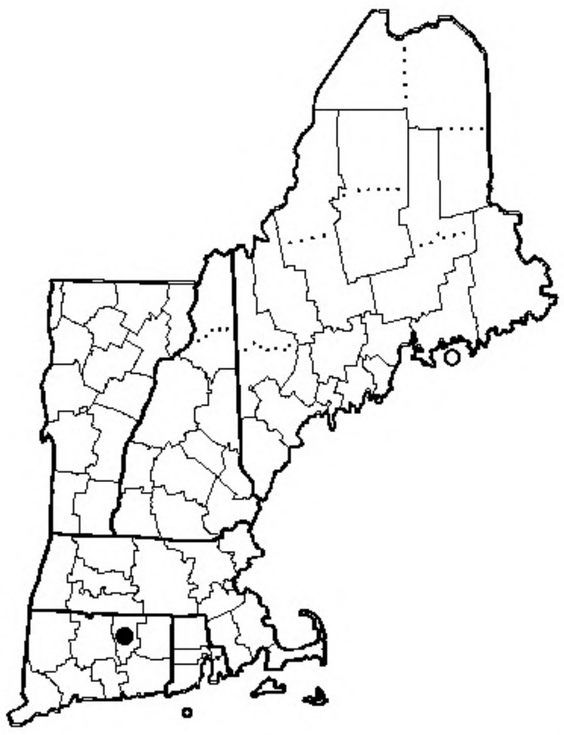


Solidago caesia var. *caesia*
X *S. rugosa* var. *rugosa*

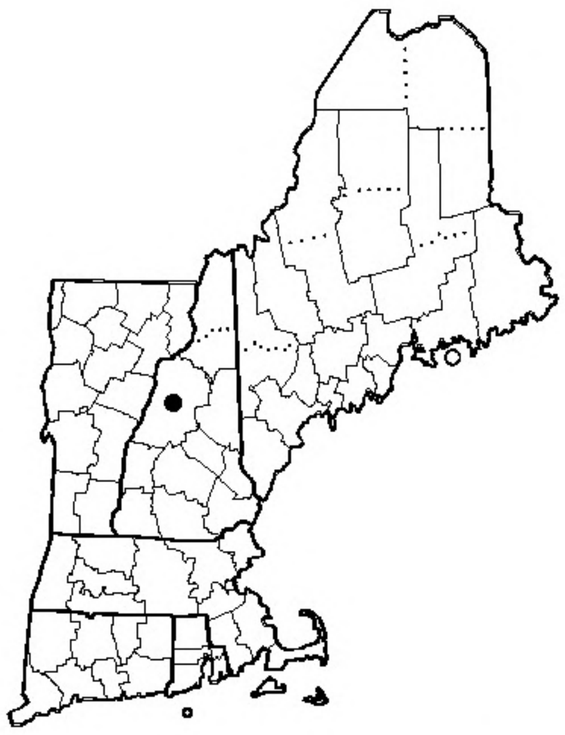


Solidago X *calcicola*

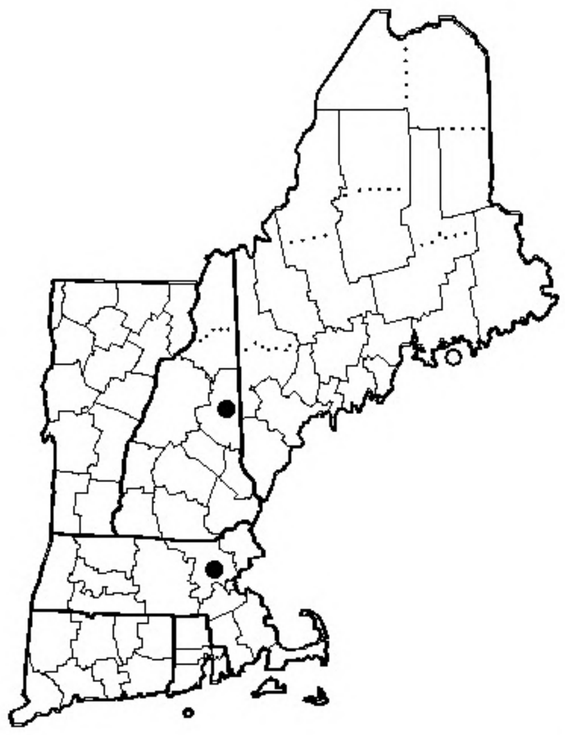
Figure 43. Distribution maps.



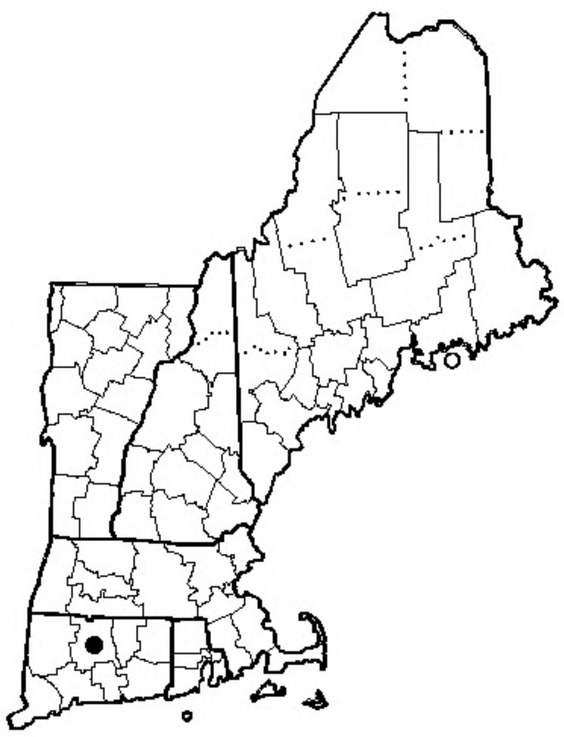
Solidago canadensis var. *canadensis*
X *S. gigantea*



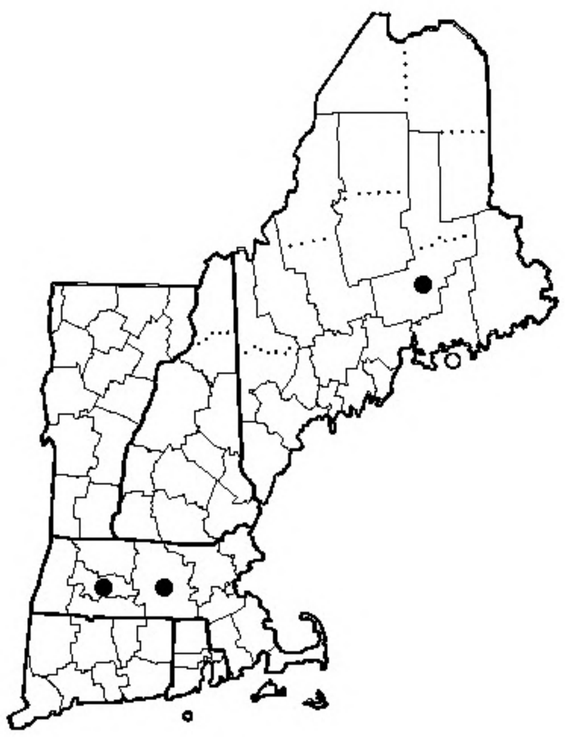
Solidago canadensis var. *canadensis*
X *S. juncea*



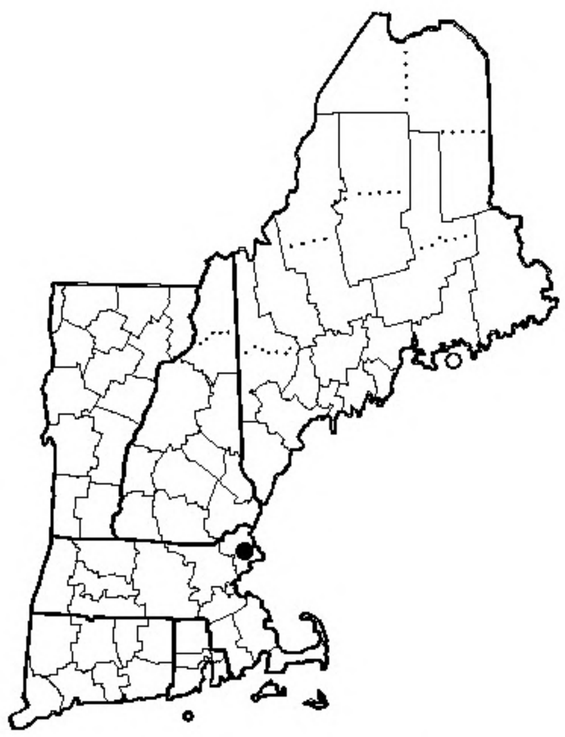
Solidago canadensis var. *canadensis*
X *S. rugosa* var. *rugosa*



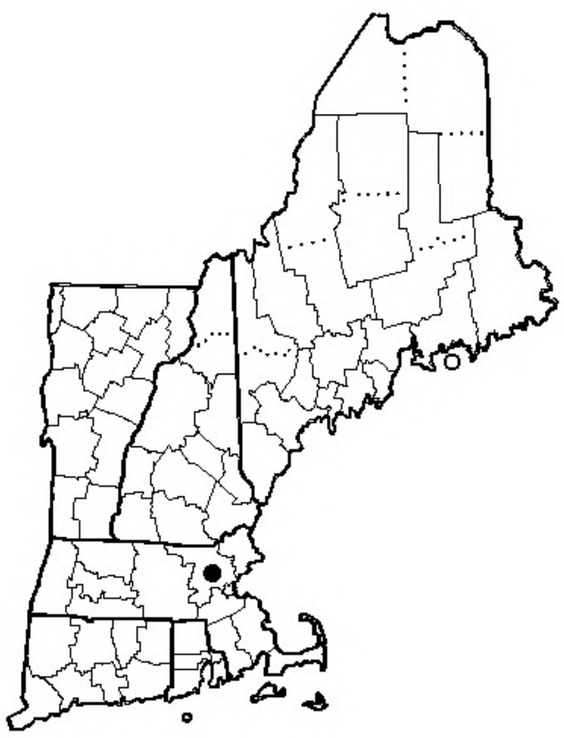
Solidago canadensis var. *hargeri*
X *S. rugosa* var. *rugosa*



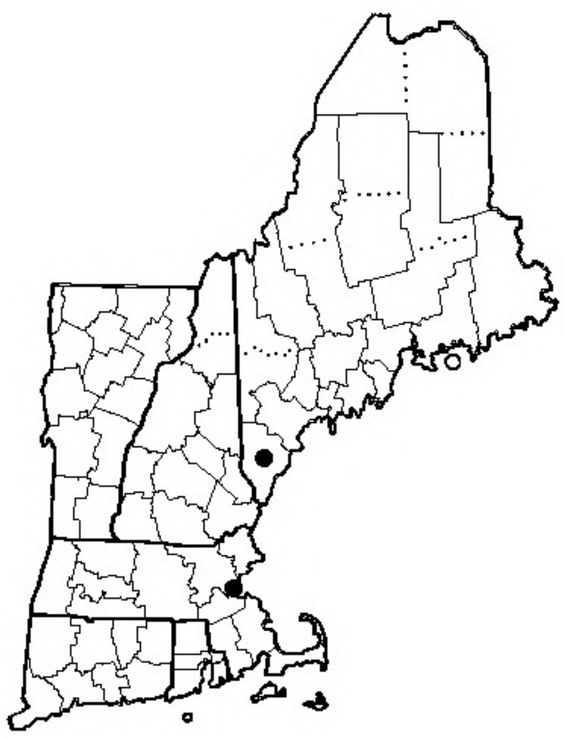
Solidago gigantea
X *S. rugosa* var. *rugosa*



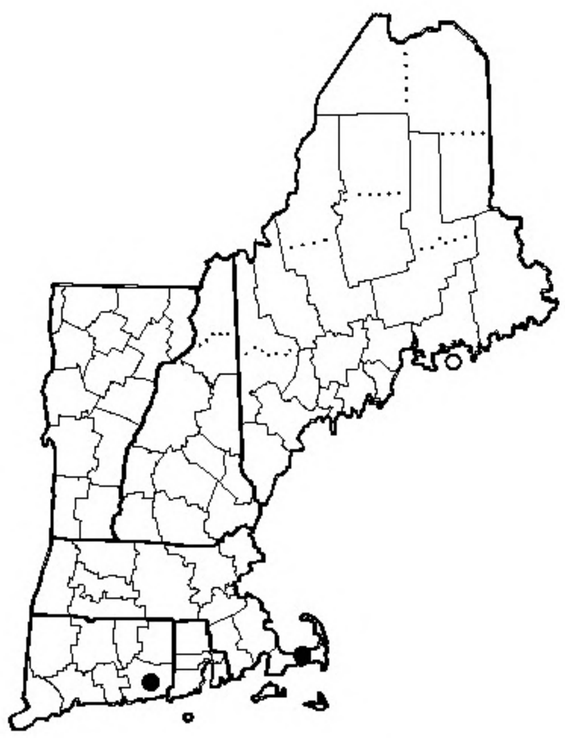
Solidago gigantea
X *S. sempervirens* subsp. *sempervirens*



Solidago juncea
X *S. nemoralis* subsp. *nemoralis*

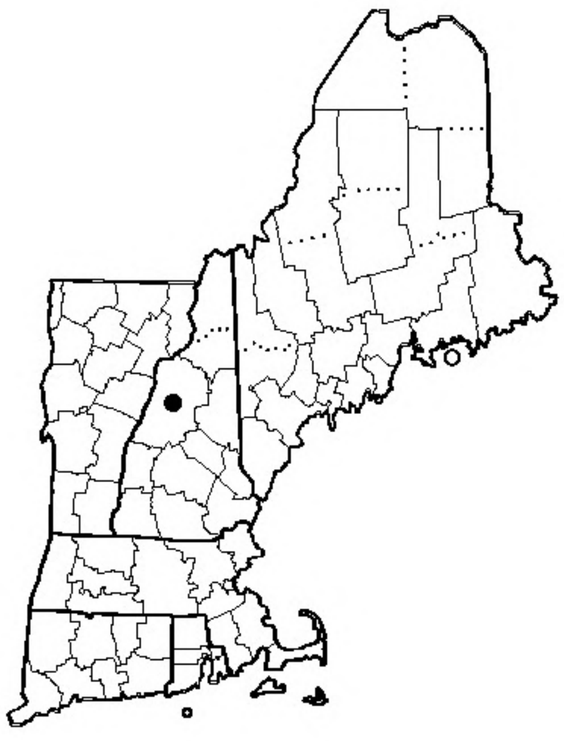


Solidago juncea
X *S. sempervirens* subsp. *sempervirens*

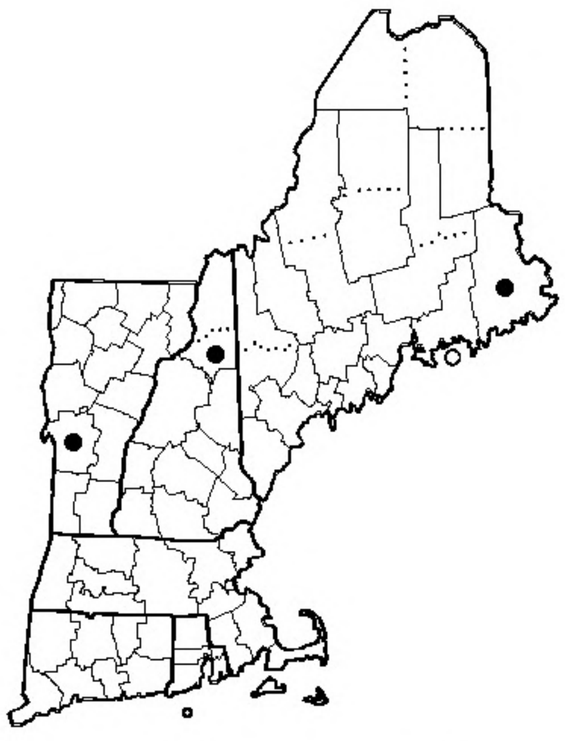


Solidago latissimifolia
X *S. rugosa* var. *sphagnophila*

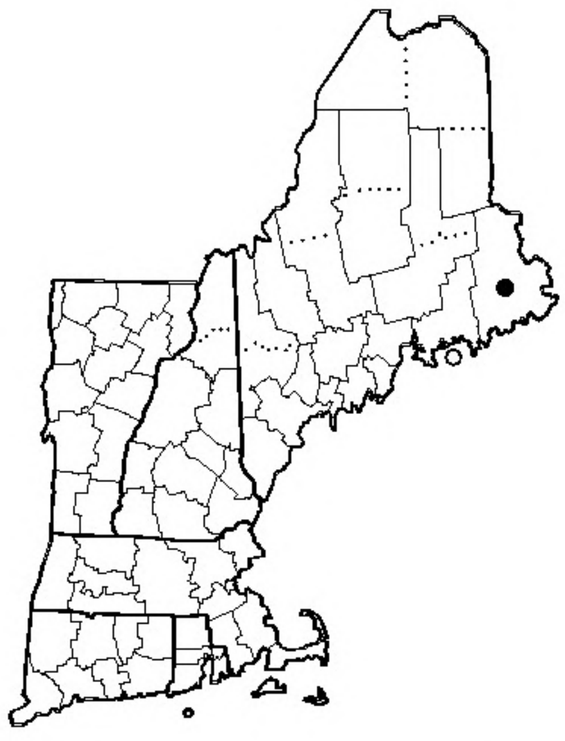
Figure 44. Distribution maps.



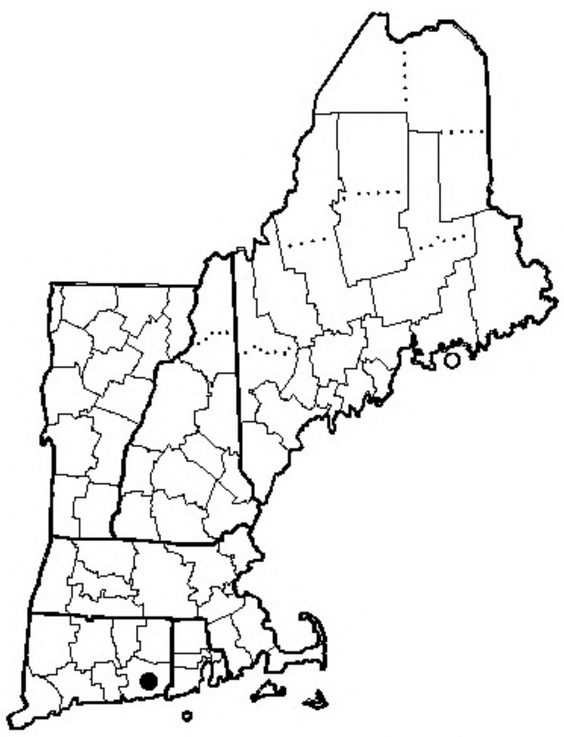
Solidago leiocarpa
X *S. simplex* var. *monticola*



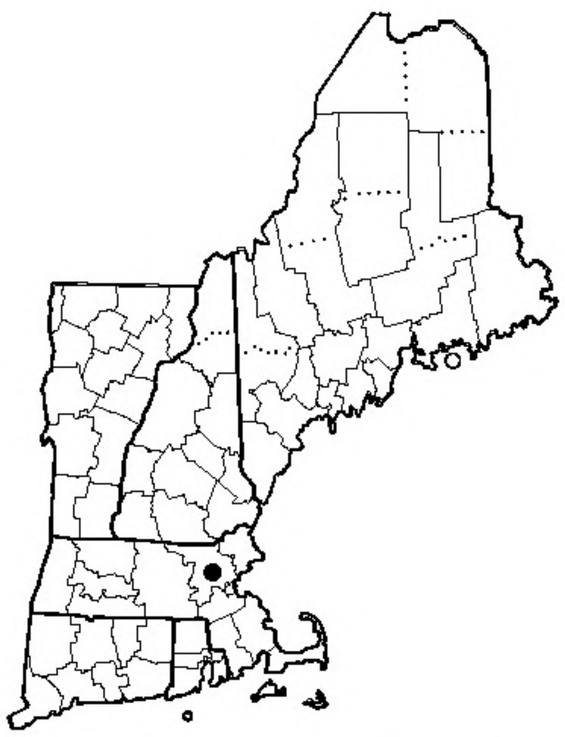
Solidago macrophylla
X *S. rugosa* var. *rugosa*



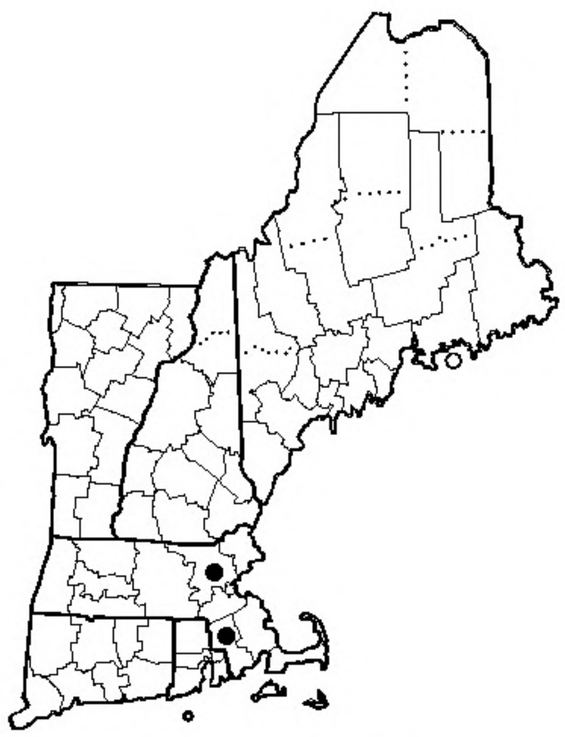
Solidago nemoralis subsp. *nemoralis*
X *S. sempervirens* subsp. *sempervirens*



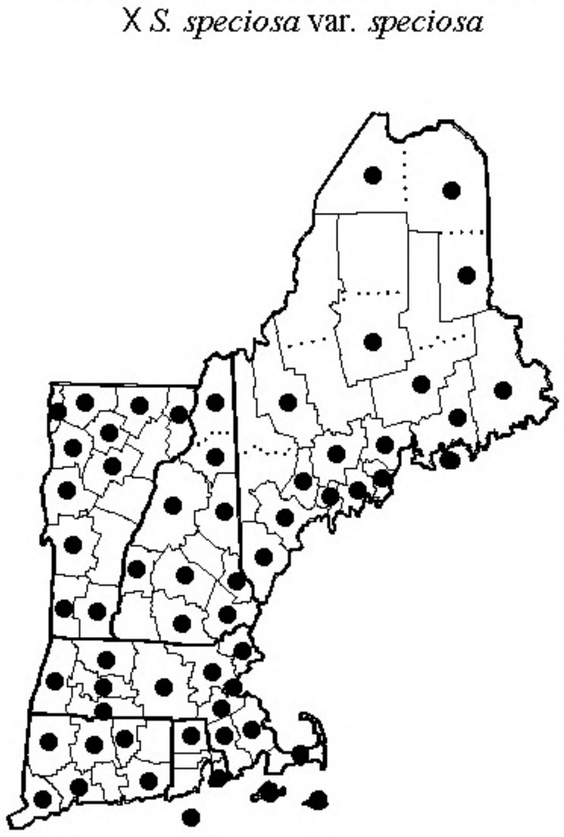
Solidago nemoralis subsp. *nemoralis*
X *S. speciosa* var. *speciosa*



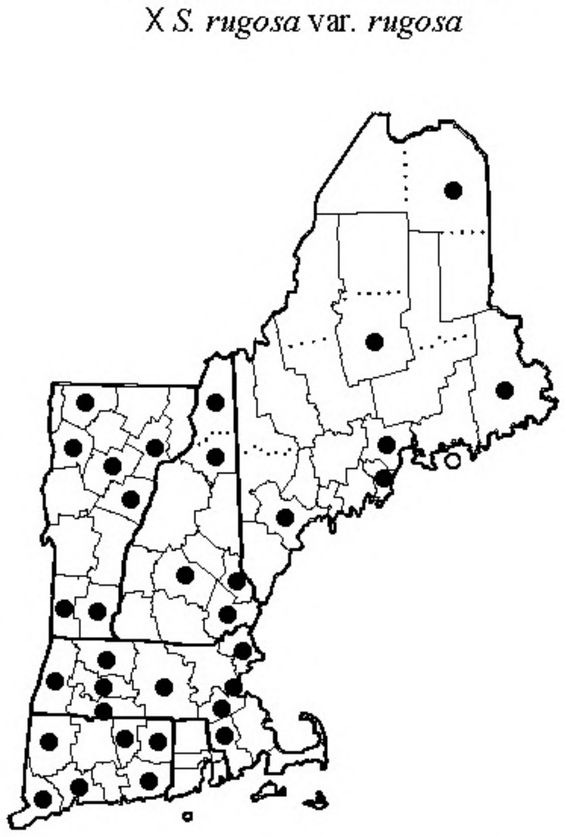
Solidago odora subsp. *odora*
X *S. rugosa* var. *rugosa*



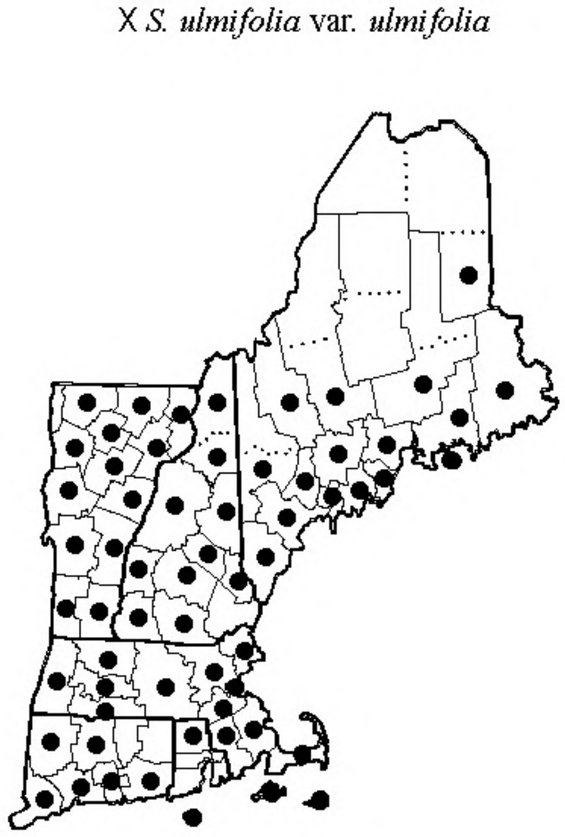
Solidago rugosa var. *rugosa*
X *S. ulmifolia* var. *ulmifolia*



SONCHUS ARVENSIS
subsp. *ARVENSIS*

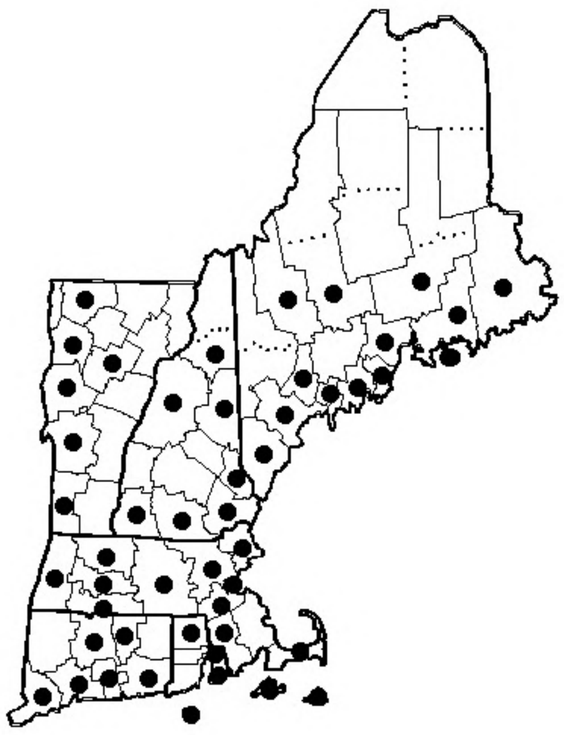


SONCHUS ARVENSIS
subsp. *ULIGINOSUS*

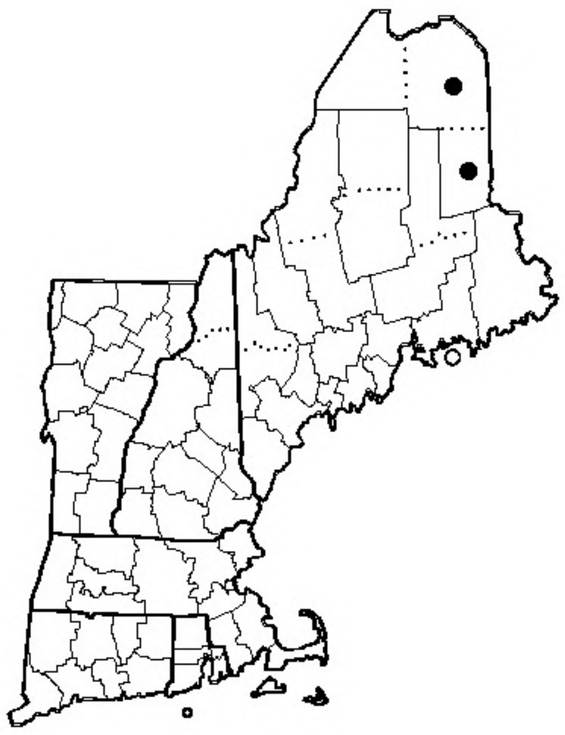


SONCHUS ASPER

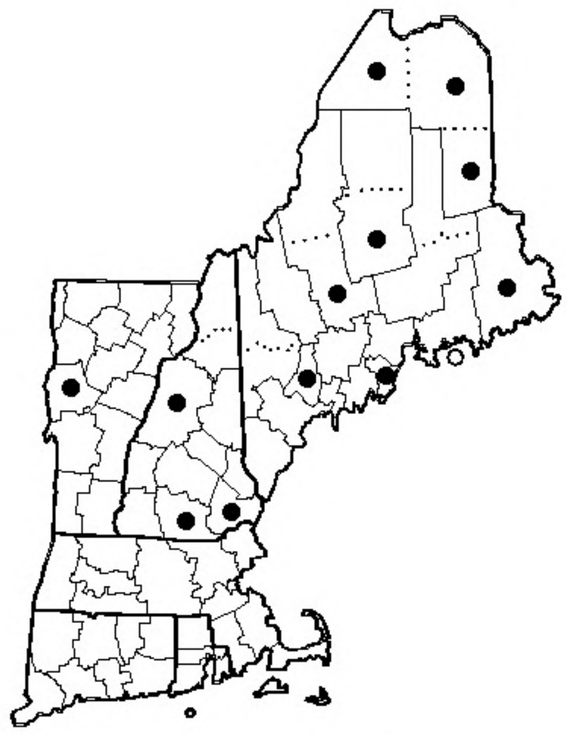
Figure 45. Distribution maps.



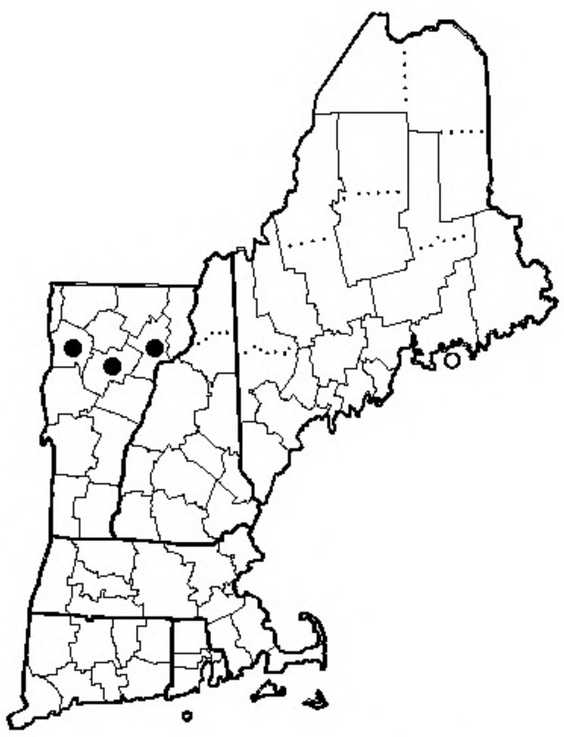
SONCHUS OLERACEUS



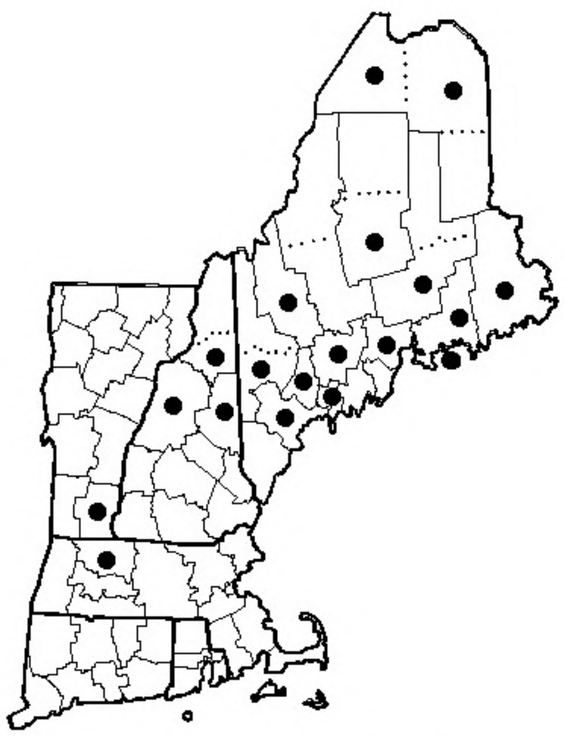
Symphyotrichum anticostense



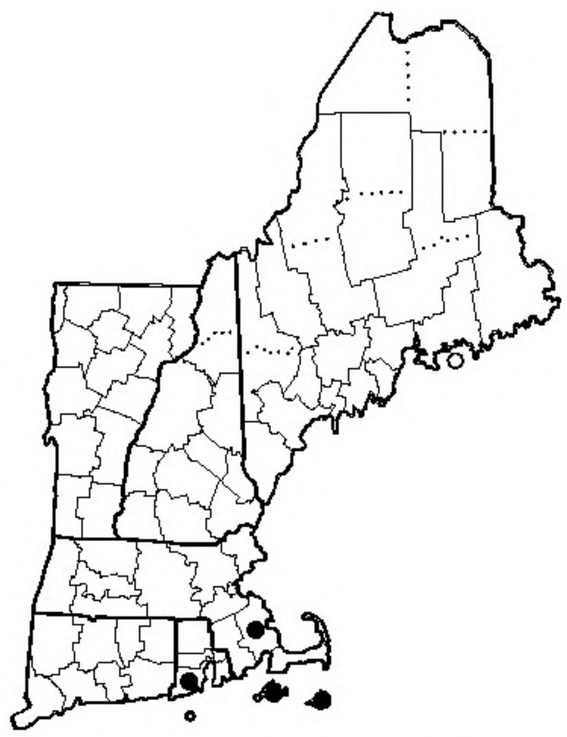
Symphyotrichum boreale



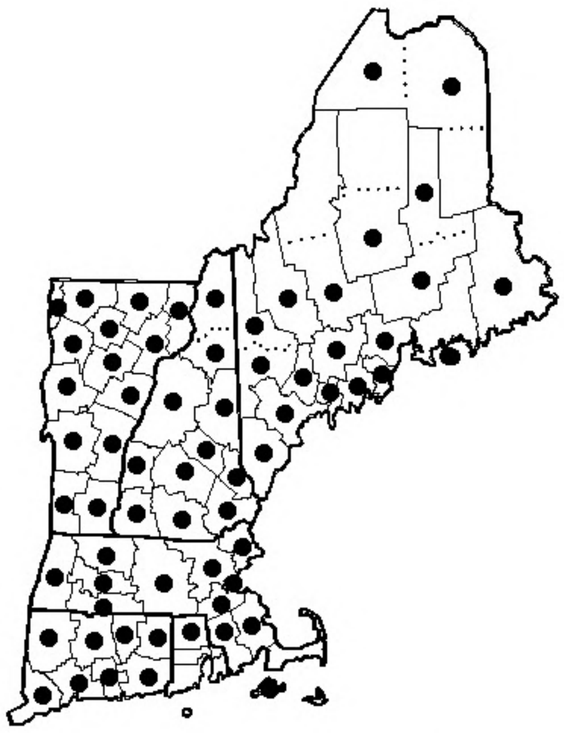
SYMPHYOTRICHUM CILIATUM



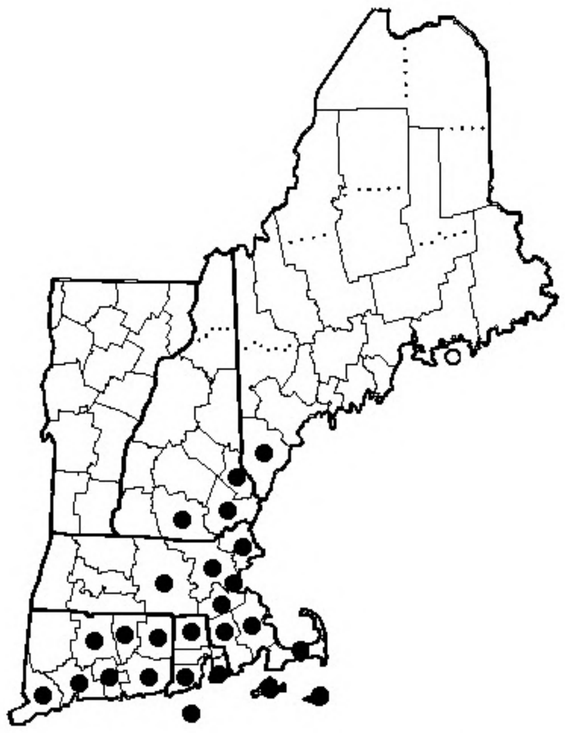
Symphyotrichum ciliolatum



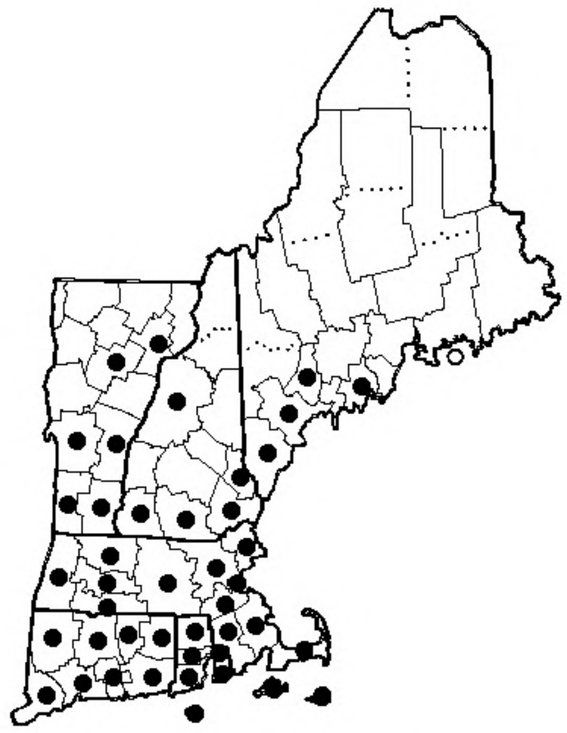
Symphyotrichum concolor
var. *concolor*



Symphyotrichum cordifolium

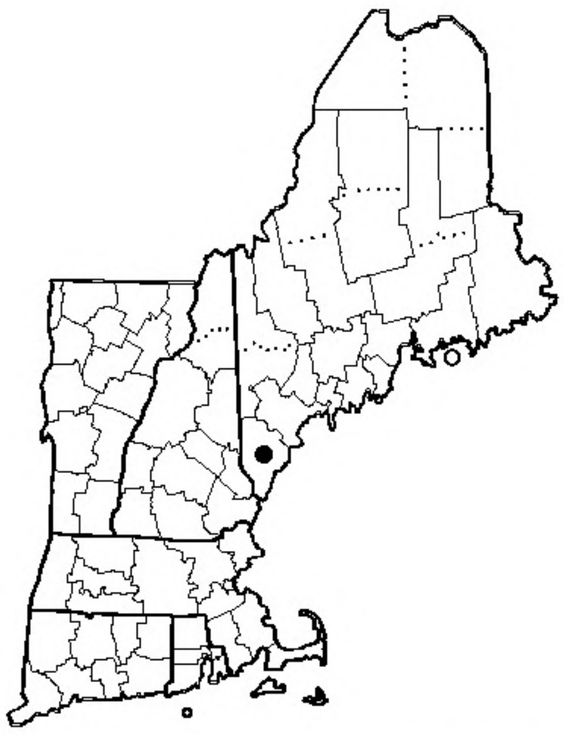


Symphyotrichum dumosum

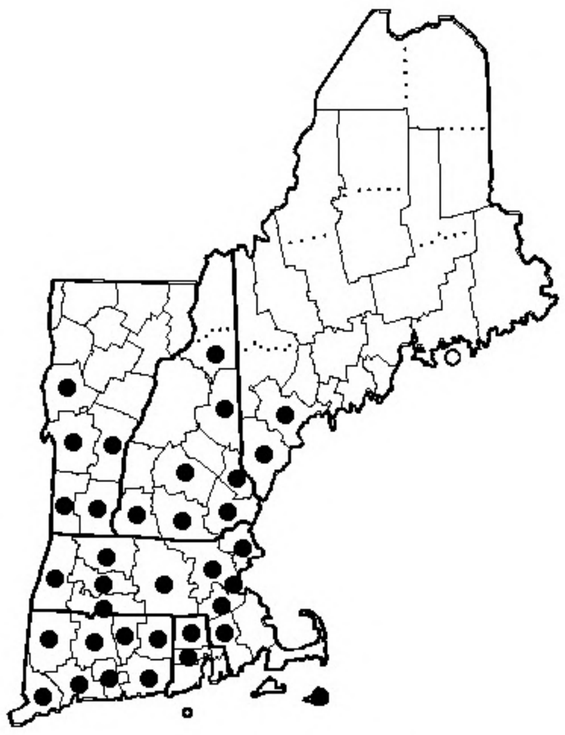


Symphyotrichum ericoides
var. *ericoides*

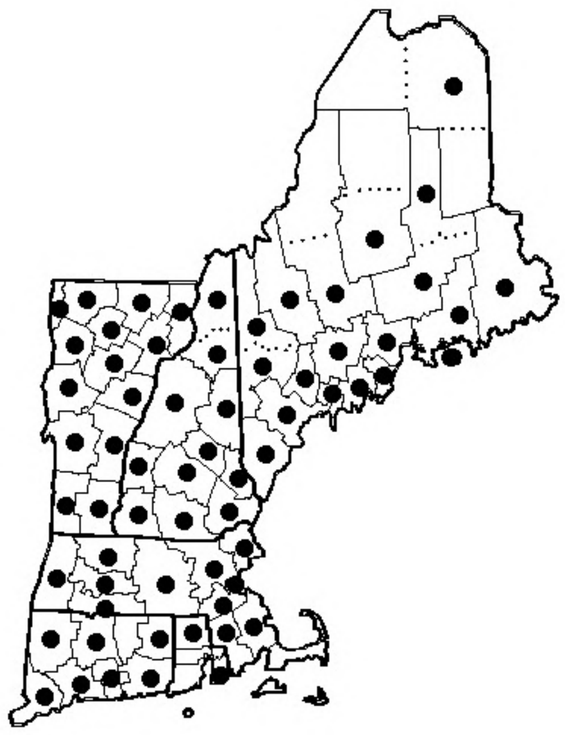
Figure 46. Distribution maps.



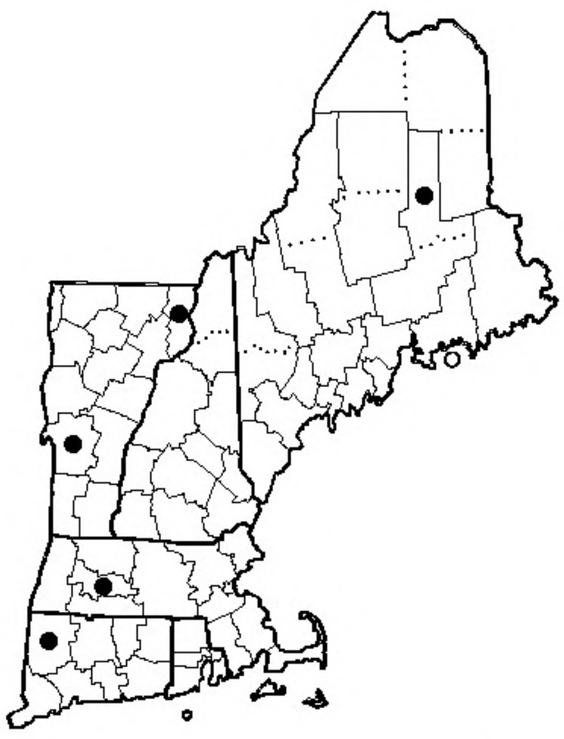
SYMPHYOTRICHUM FRONDOSUM



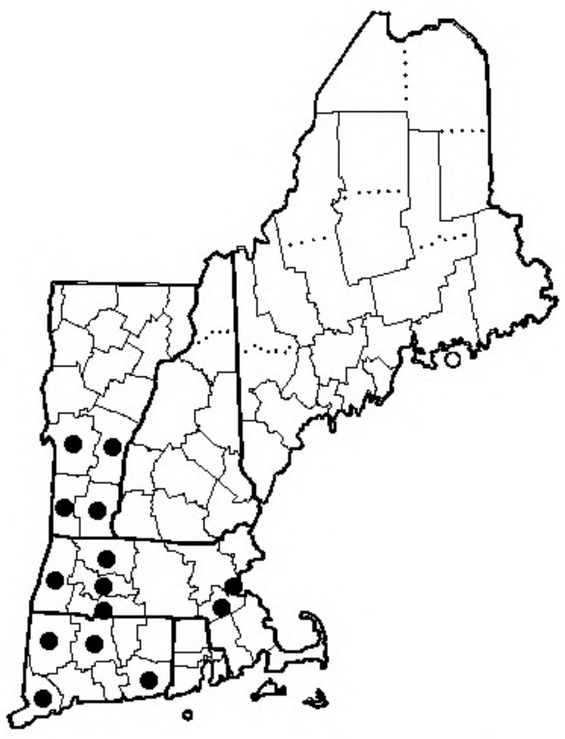
Symphyotrichum laeve
var. *laeve*



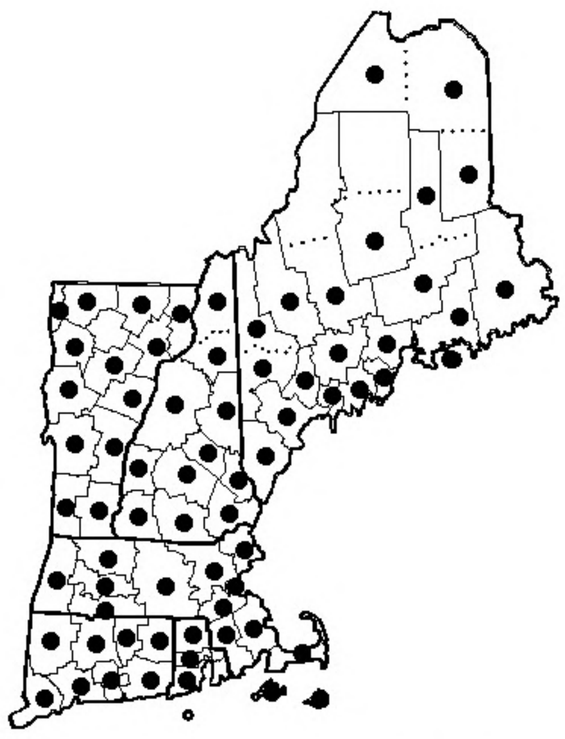
Symphyotrichum lanceolatum
var. *lanceolatum*



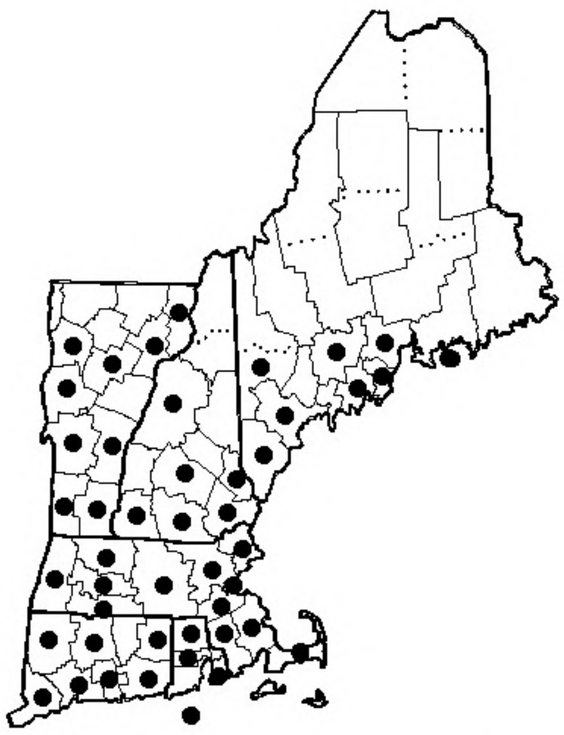
Symphyotrichum lanceolatum
var. *interior*



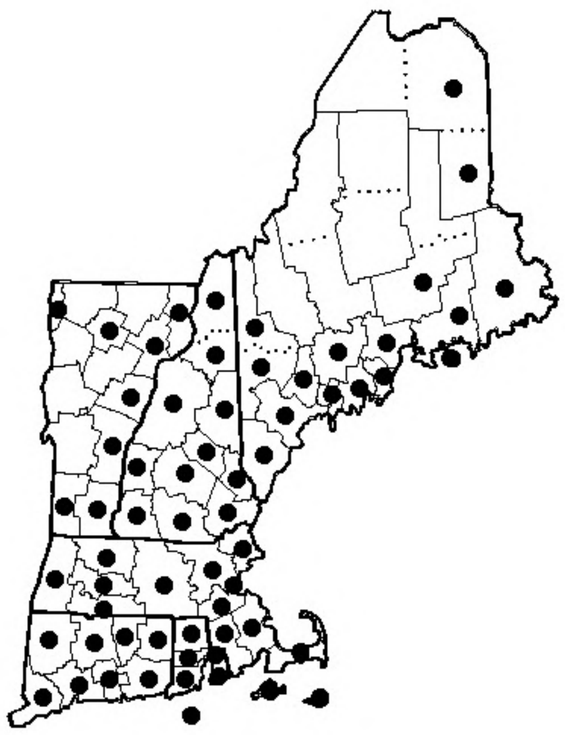
Symphyotrichum lanceolatum
var. *latifolium*



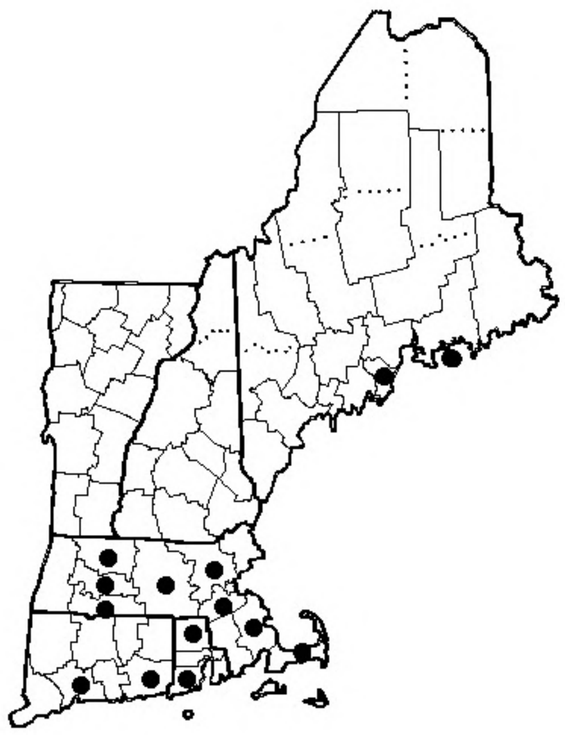
Symphyotrichum lateriflorum



Symphyotrichum novae-angliae

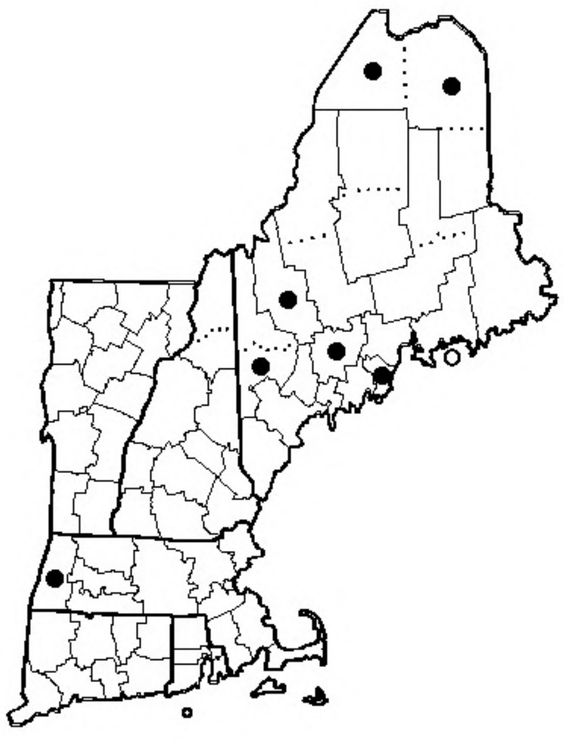


Symphyotrichum novi-belgii
var. *novi-belgii*

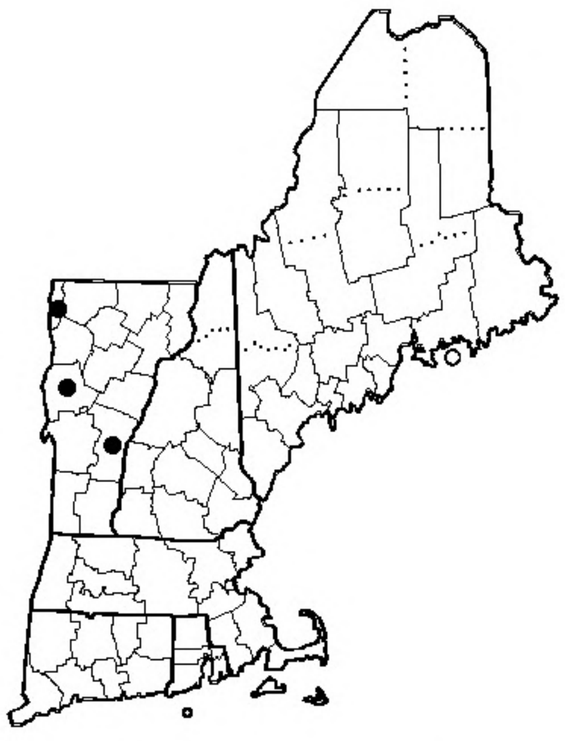


Symphyotrichum novi-belgii
var. *elodes*

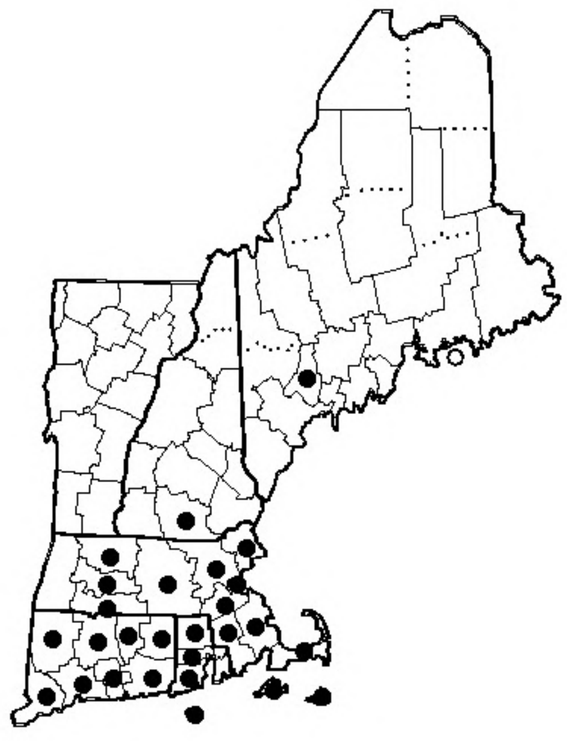
Figure 47. Distribution maps.



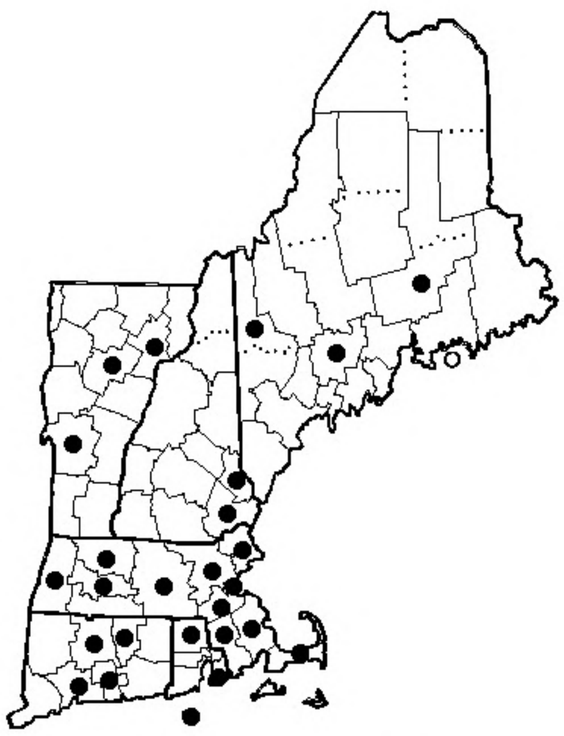
Symphyotrichum novi-belgii
var. *villicaule*



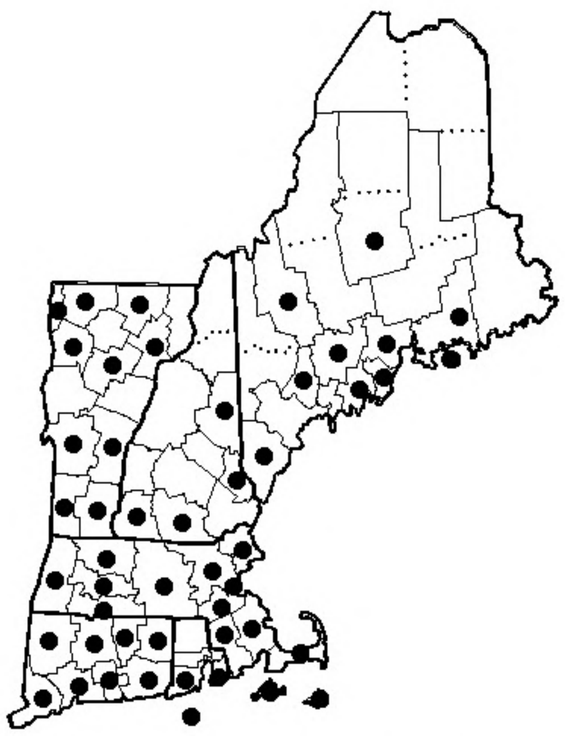
Symphyotrichum ontarionis
var. *ontarionis*



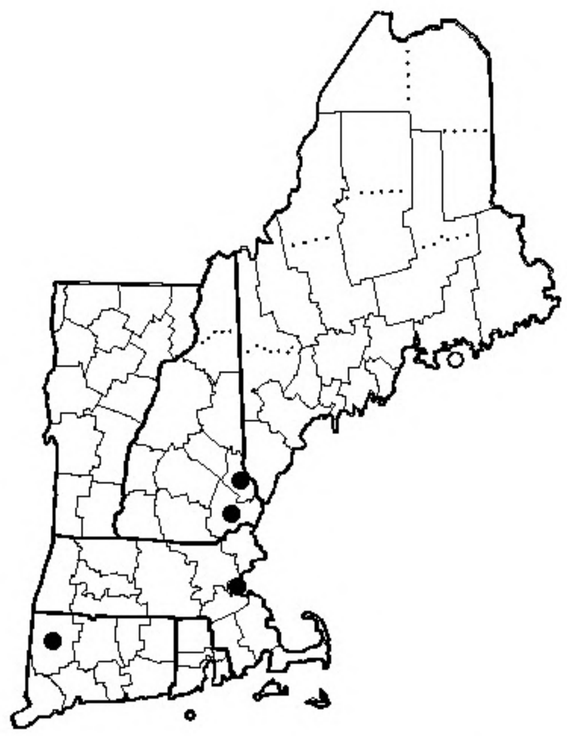
Symphyotrichum patens
var. *patens*



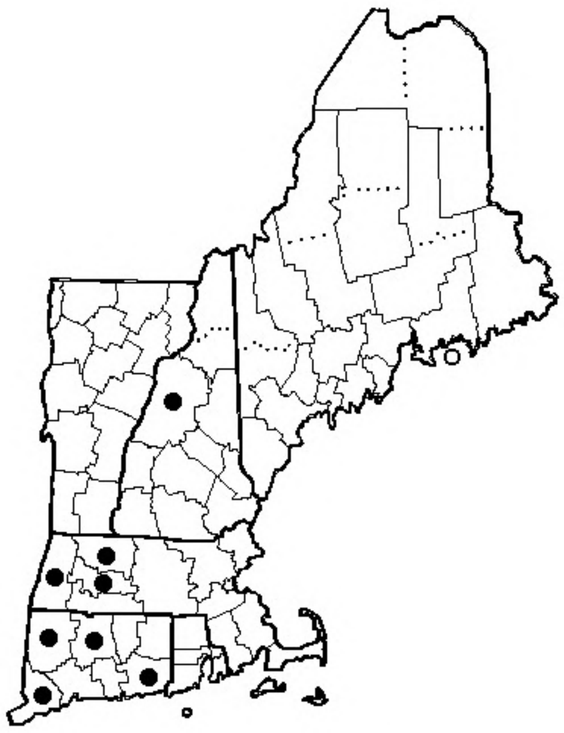
Symphyotrichum pilosum
var. *pilosum*



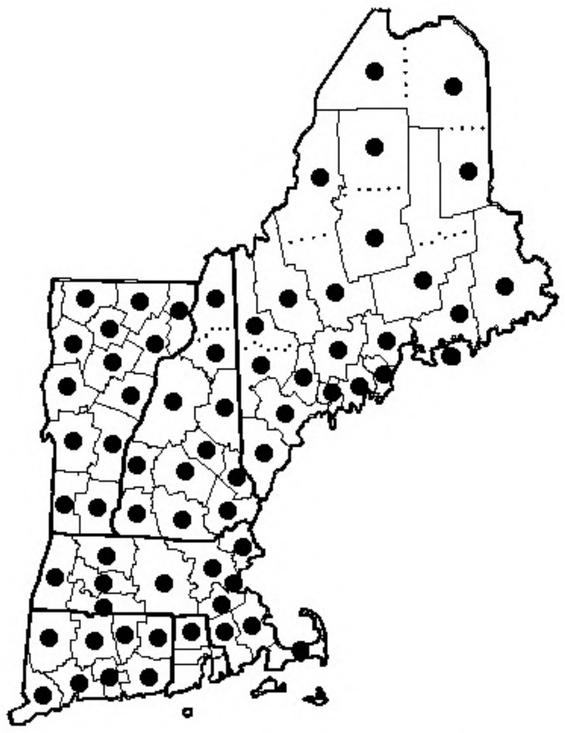
Symphyotrichum pilosum
var. *pringlei*



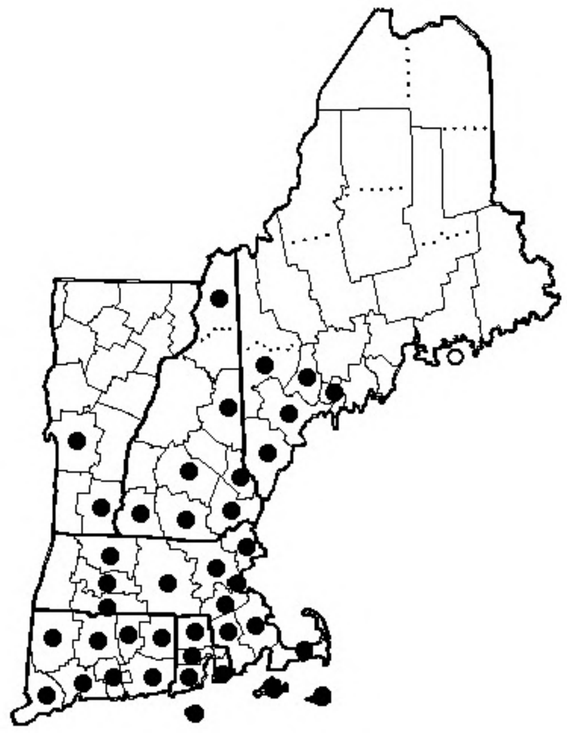
Symphyotrichum praealtum



Symphyotrichum prenanthoides

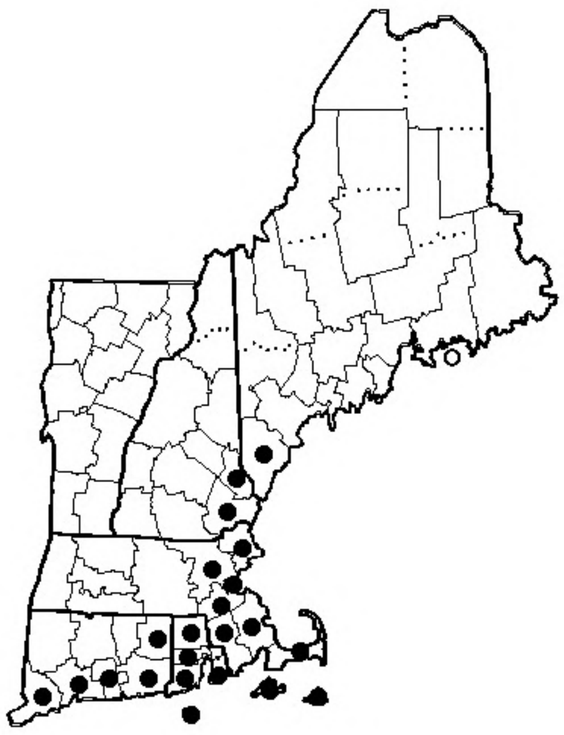


Symphyotrichum puniceum
var. *puniceum*

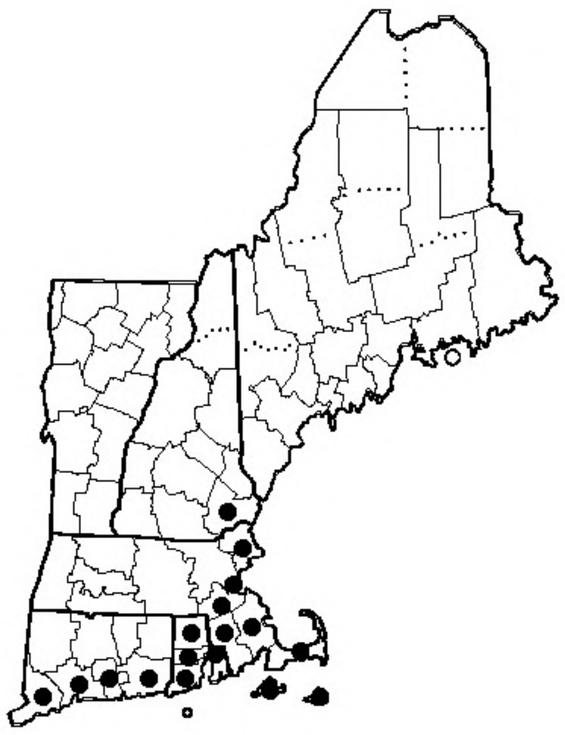


Symphyotrichum racemosum

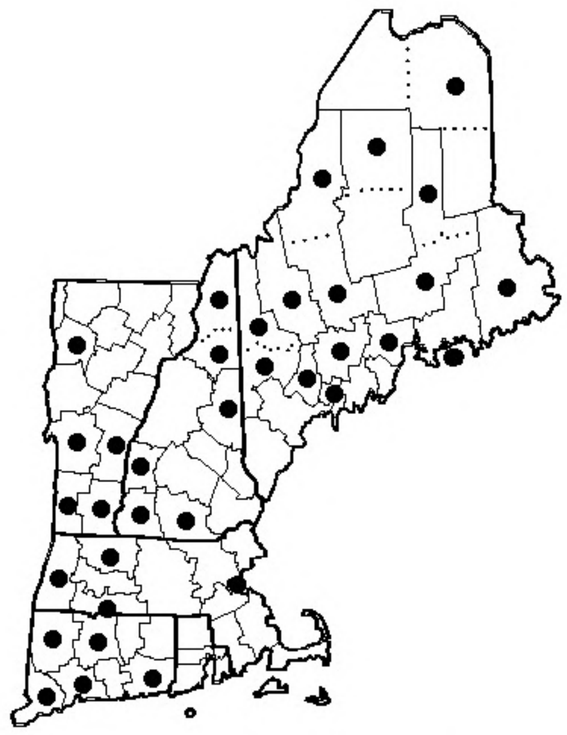
Figure 48. Distribution maps.



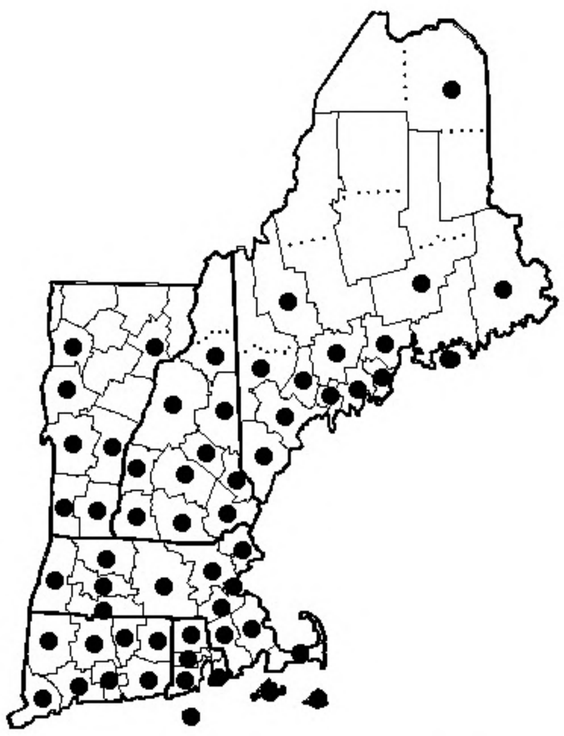
Symphyotrichum subulatum
var. *subulatum*



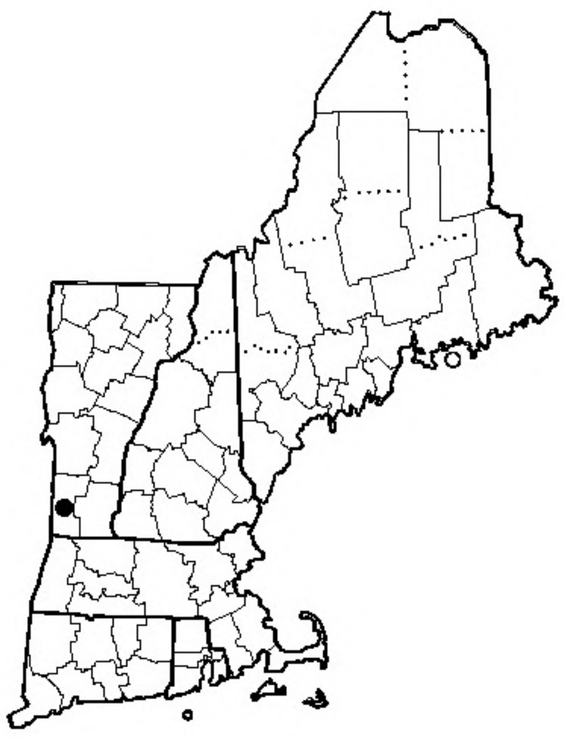
Symphyotrichum tenuifolium
var. *tenuifolium*



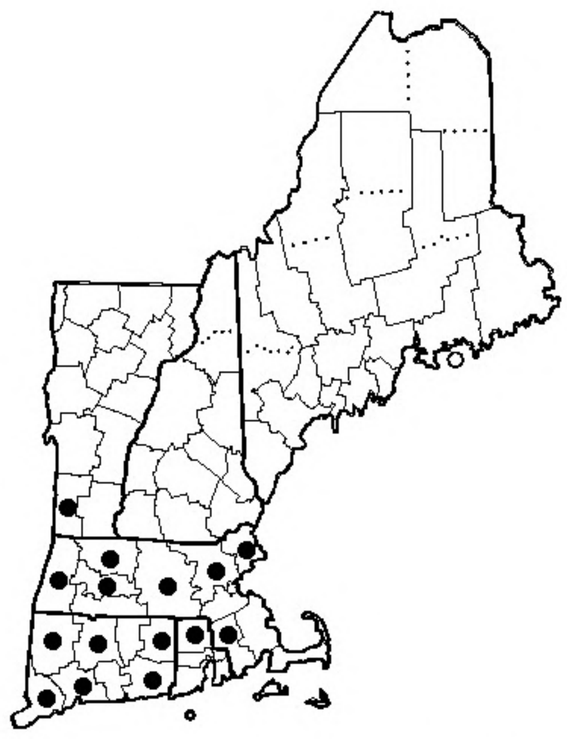
Symphyotrichum tradescantii



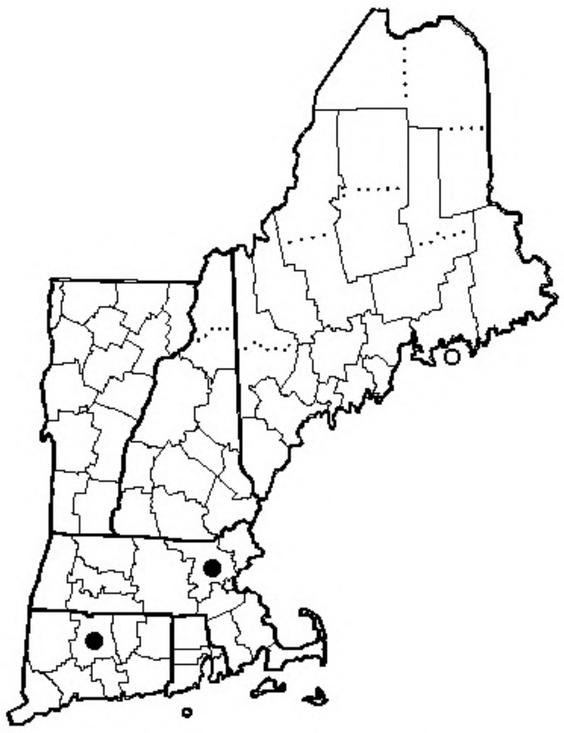
Symphyotrichum undulatum



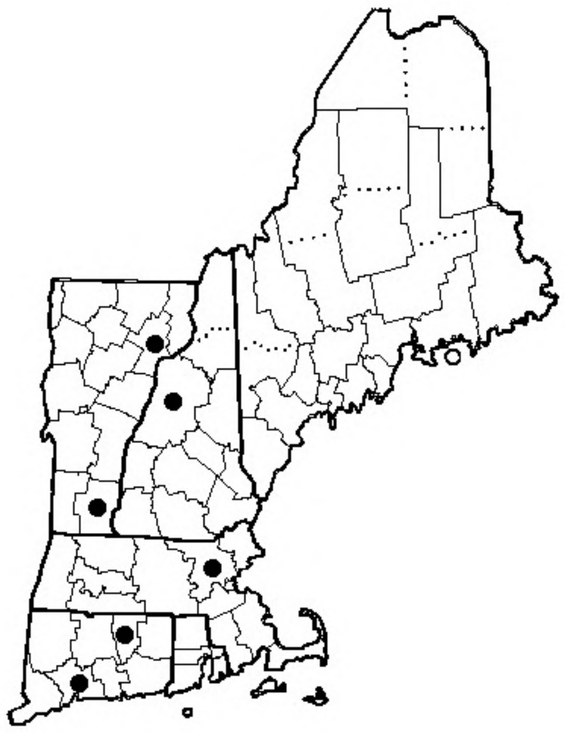
Symphyotrichum urophyllum



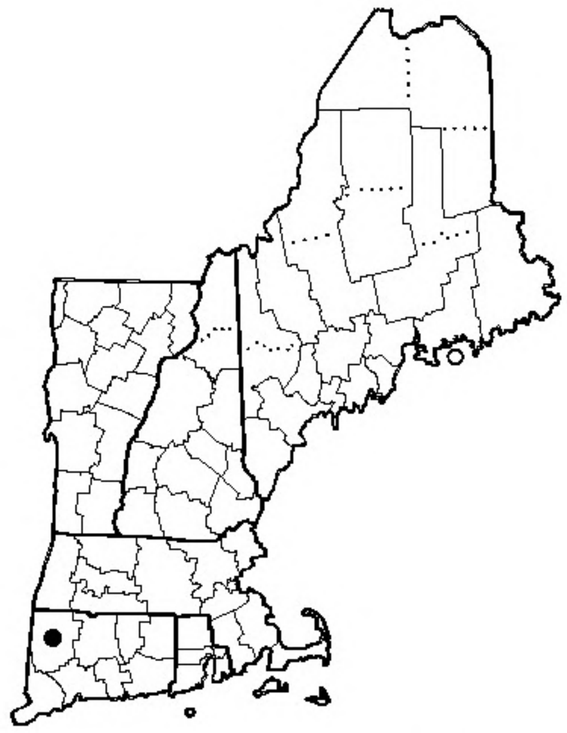
Symphyotrichum X *amethystinum*



Symphyotrichum ciliolatum
X *S. prenanthoides*

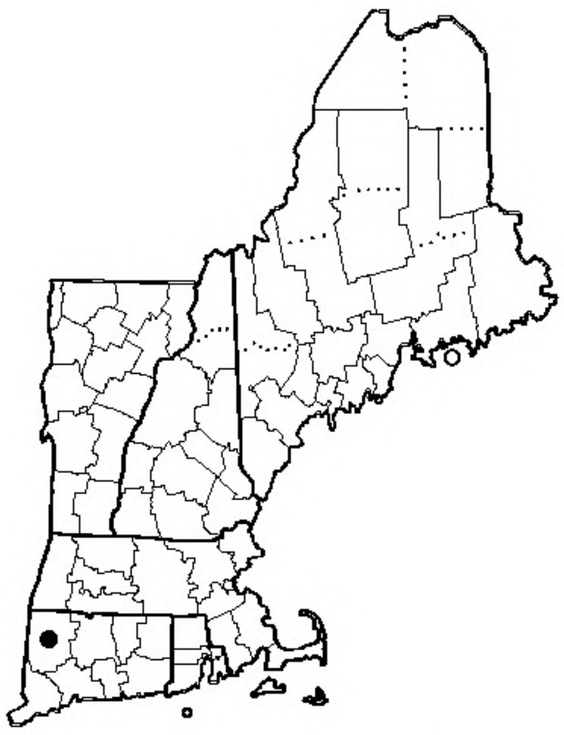


Symphyotrichum ciliolatum
X *S. puniceum* var. *puniceum*

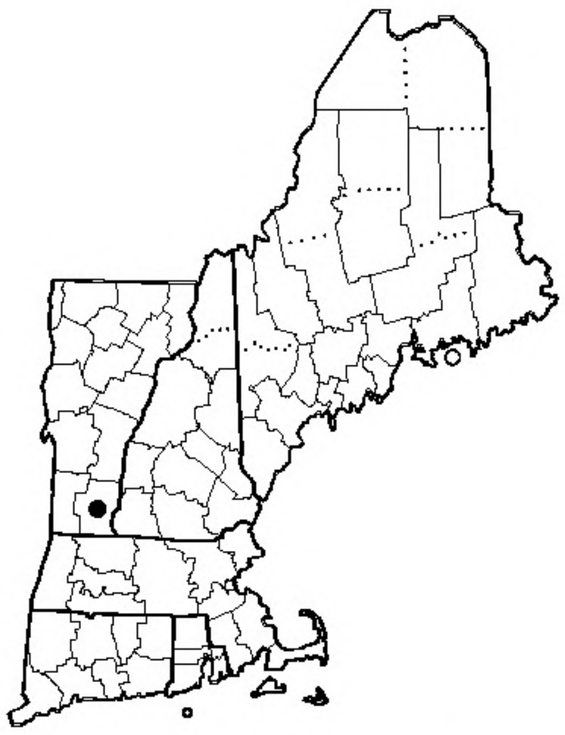


Symphyotrichum cordifolium
X *S. ericoides* var. *ericoides*

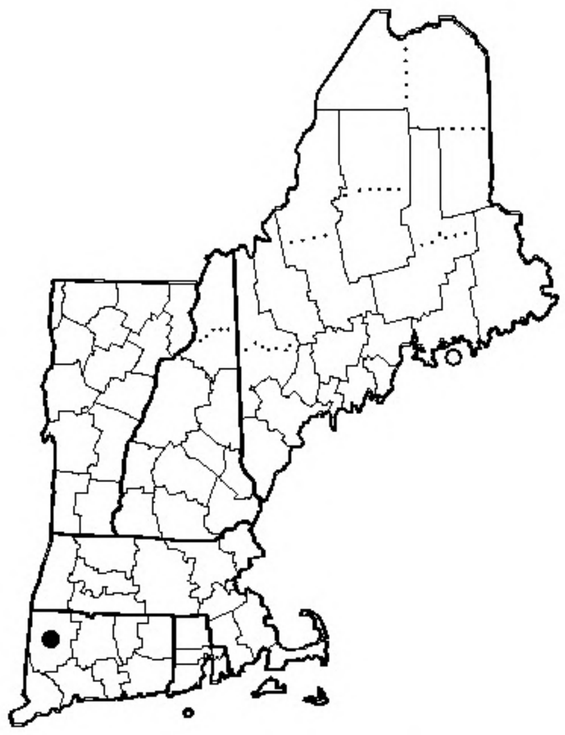
Figure 49. Distribution maps.



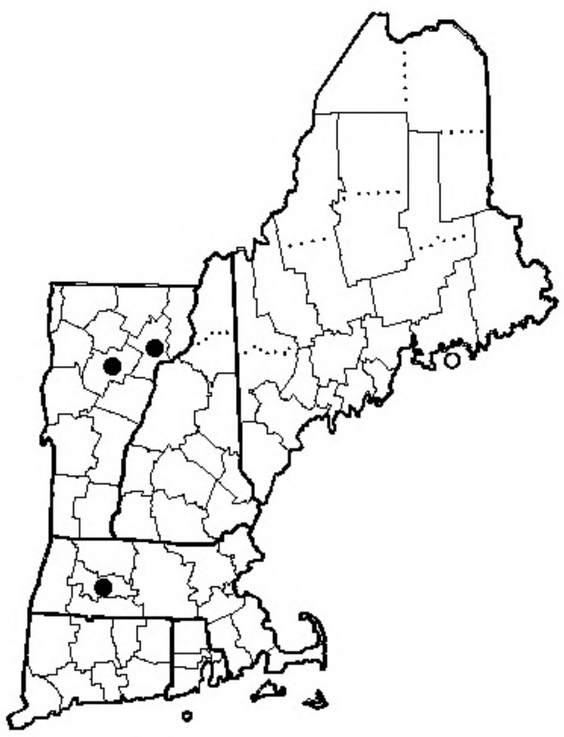
Symphyotrichum cordifolium
X *S. lateriflorum*



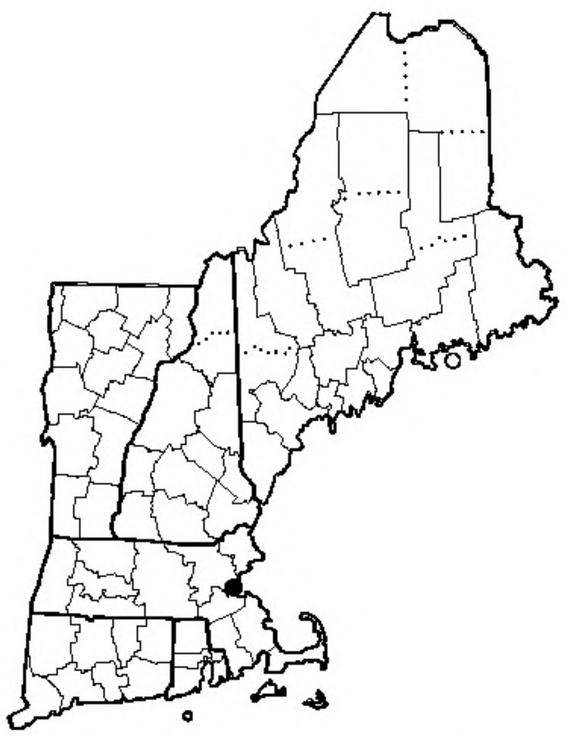
Symphyotrichum cordifolium
X *S. novi-belgii* var. *novi-belgii*



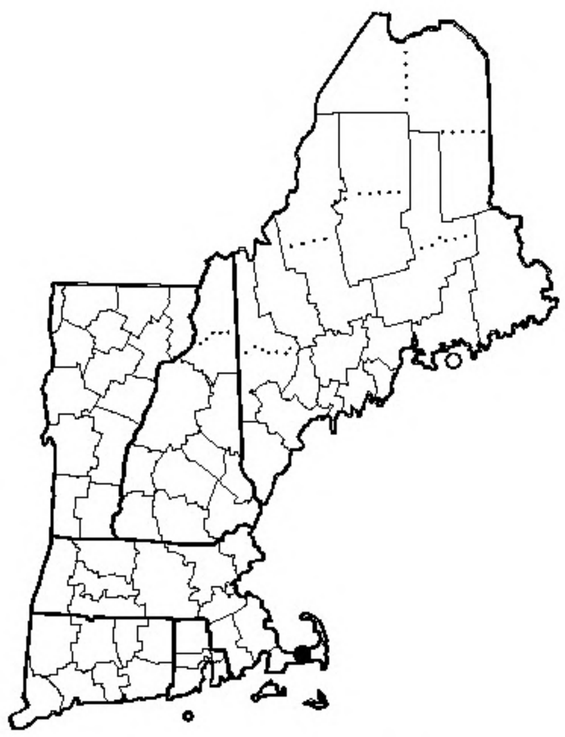
Symphyotrichum cordifolium
X *S. pilosum* var. *pringlei*



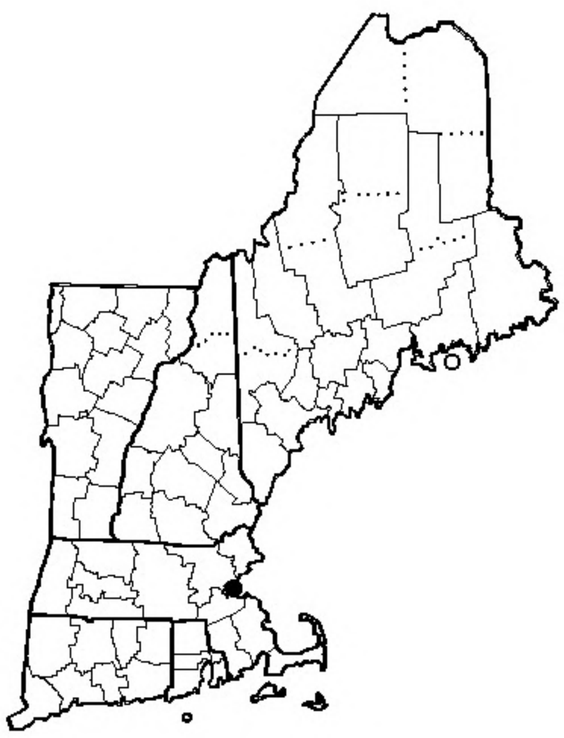
Symphyotrichum cordifolium
X *S. puniceum* var. *puniceum*



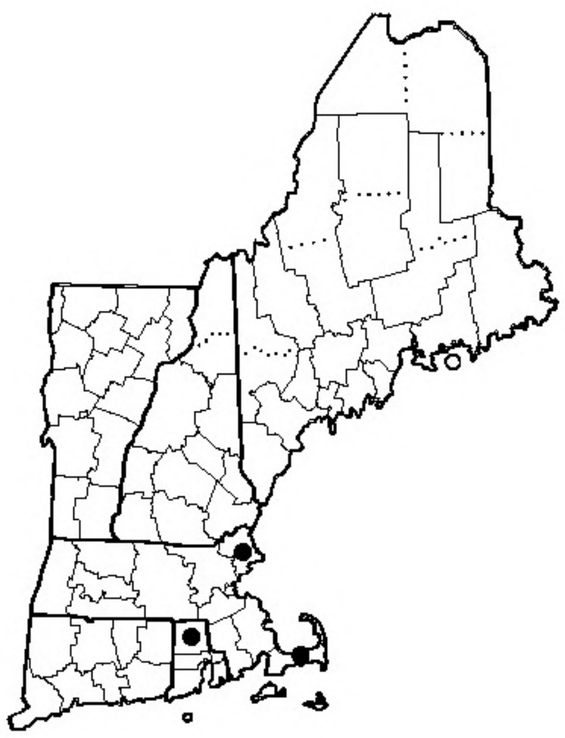
Symphyotrichum cordifolium
X *S. undulatum*



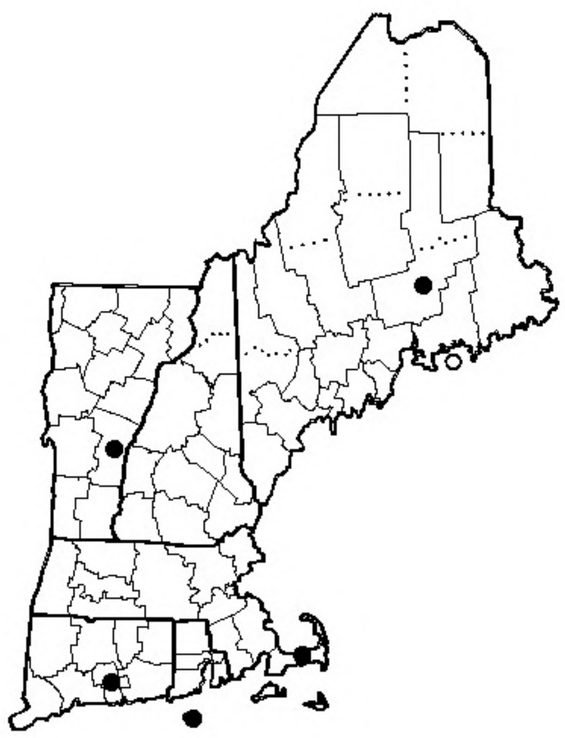
Symphyotrichum dumosum
X *S. lateriflorum*



Symphyotrichum dumosum
X *S. puniceum* var. *puniceum*

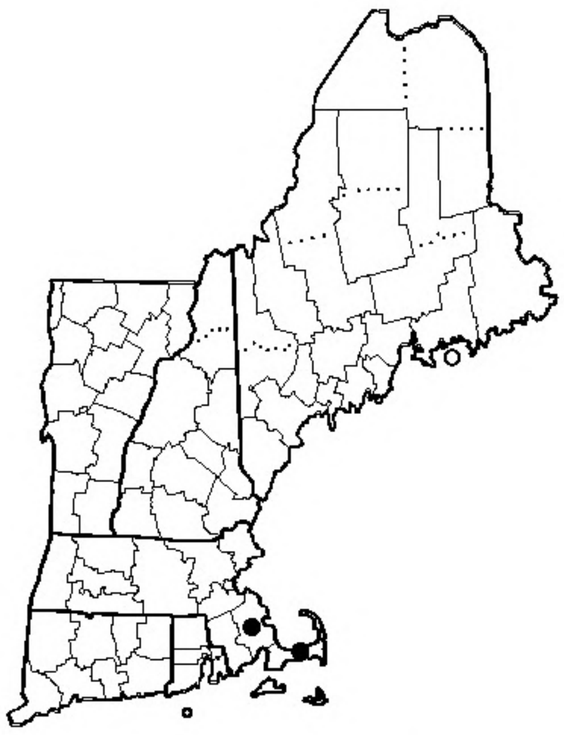


Symphyotrichum dumosum
X *S. racemosum*

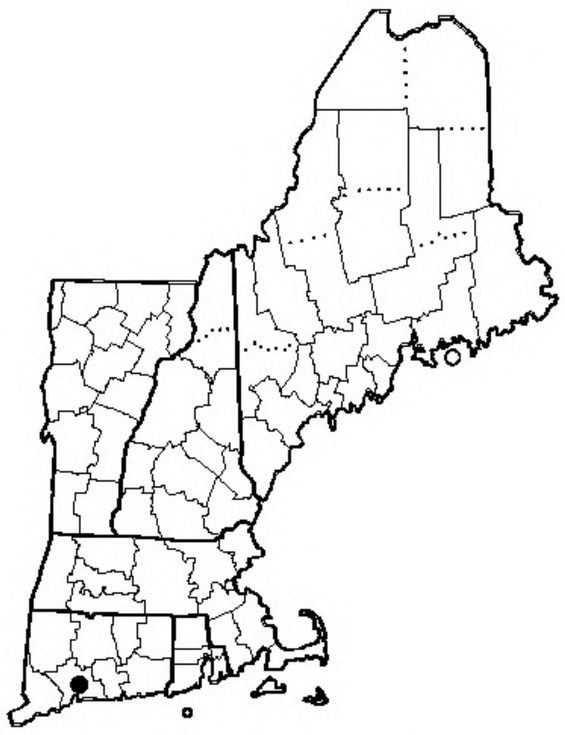


Symphyotrichum dumosum
X *S. tradescantii*

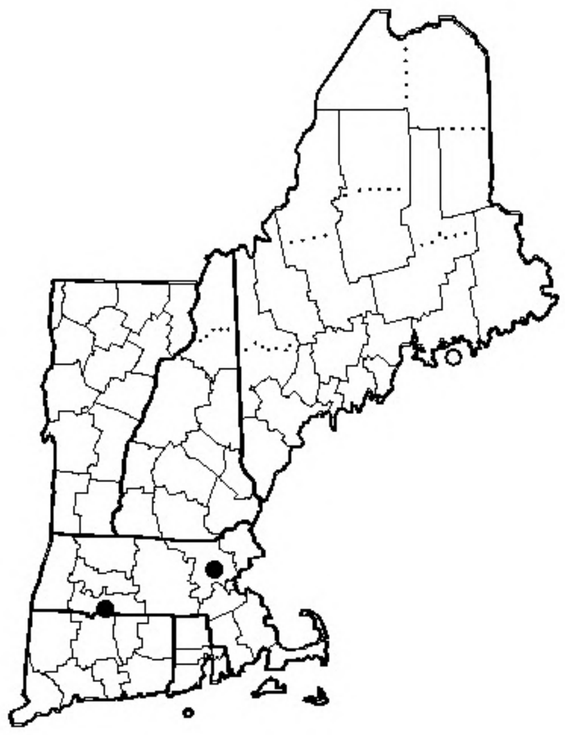
Figure 50. Distribution maps.



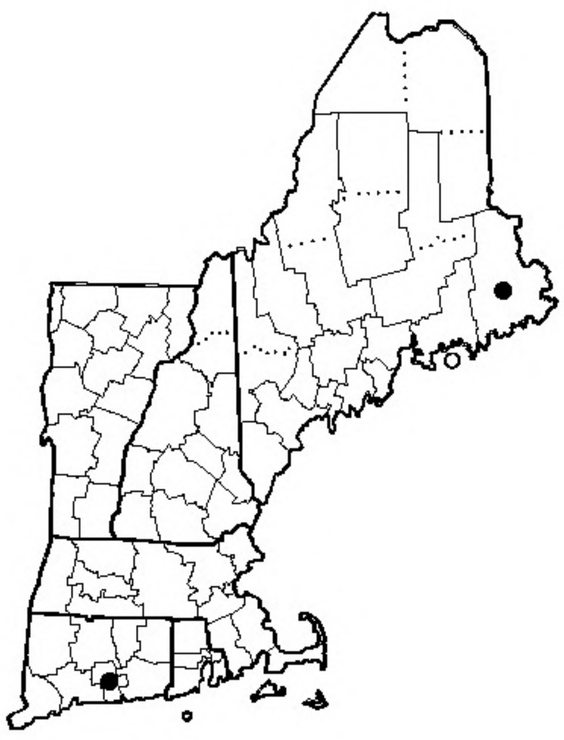
Symphyotrichum ericoides var. *ericoides*
X *S. novi-belgii* var. *novi-belgii*



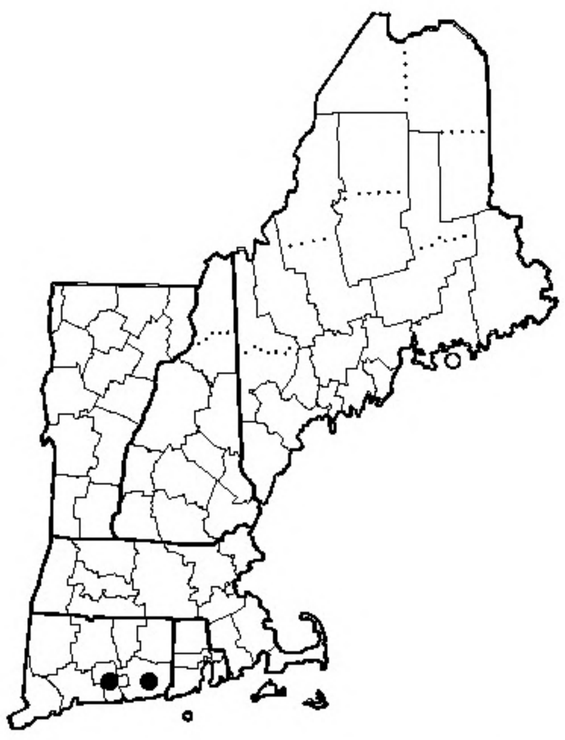
Symphyotrichum ericoides var. *ericoides*
X *S. undulatum*



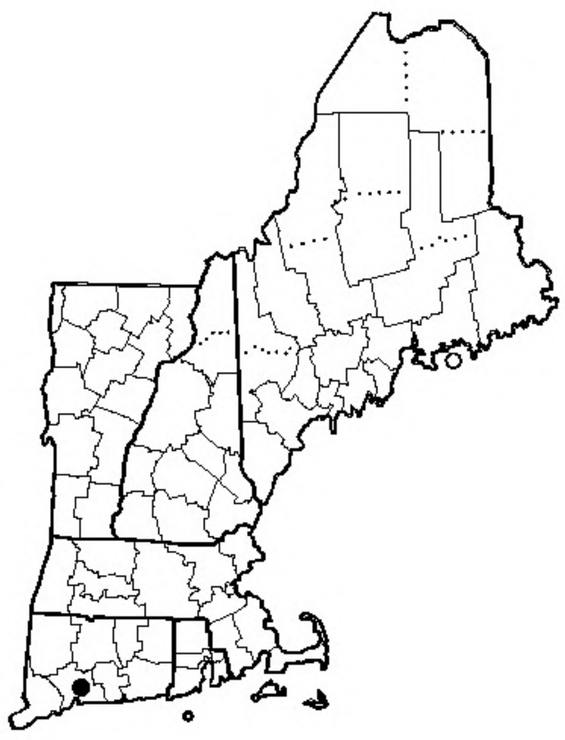
Symphyotrichum laeve var. *laeve*
X *S. lanceolatum* var. *lanceolatum*



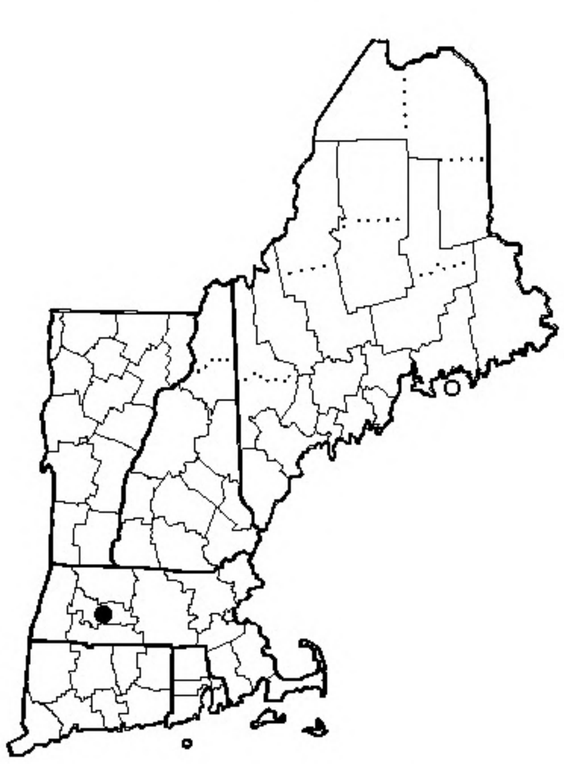
Symphyotrichum laeve var. *laeve*
X *S. praealtum*



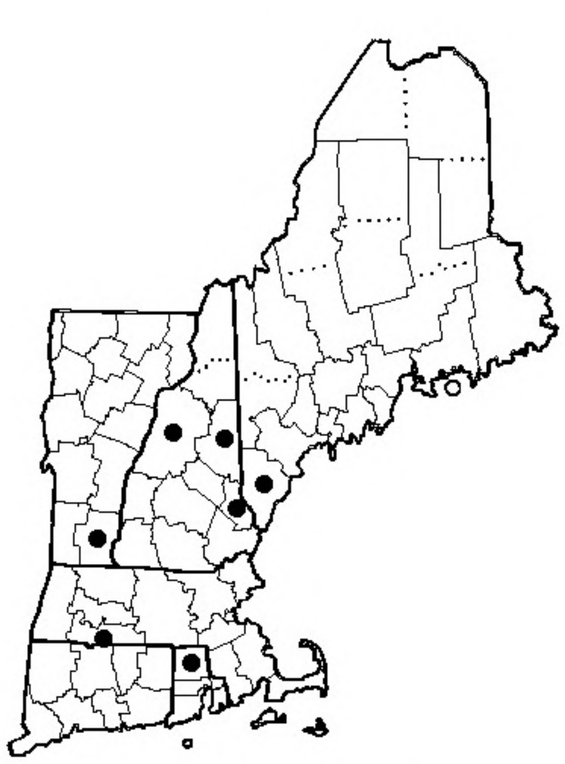
Symphyotrichum laeve var. *laeve*
X *S. racemosum*



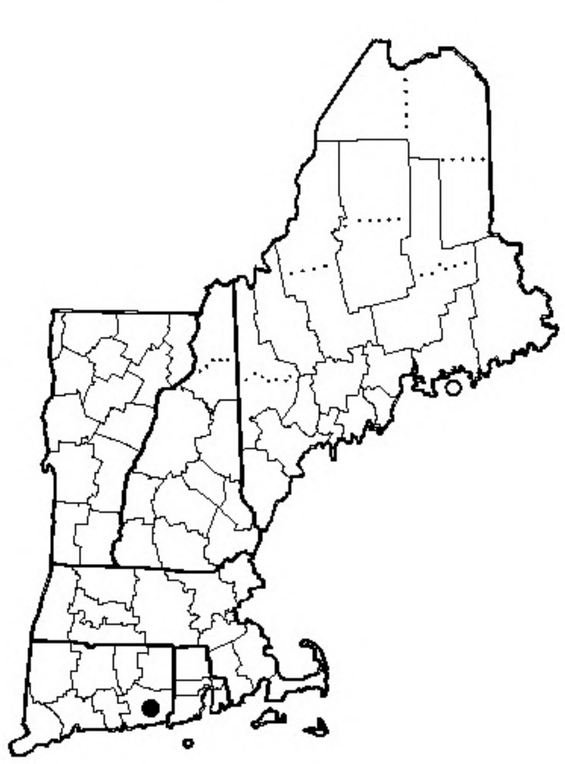
Symphyotrichum laeve var. *laeve*
X *S. undulatum*



Symphyotrichum lanceolatum var. *lanceolatum*
X *S. novae-angliae*

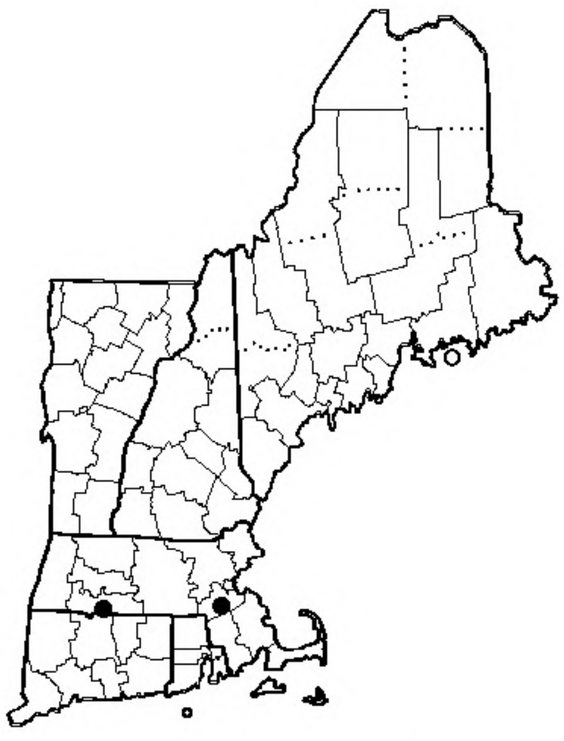


Symphyotrichum lanceolatum var. *lanceolatum*
X *S. novi-belgii* var. *novi-belgii*

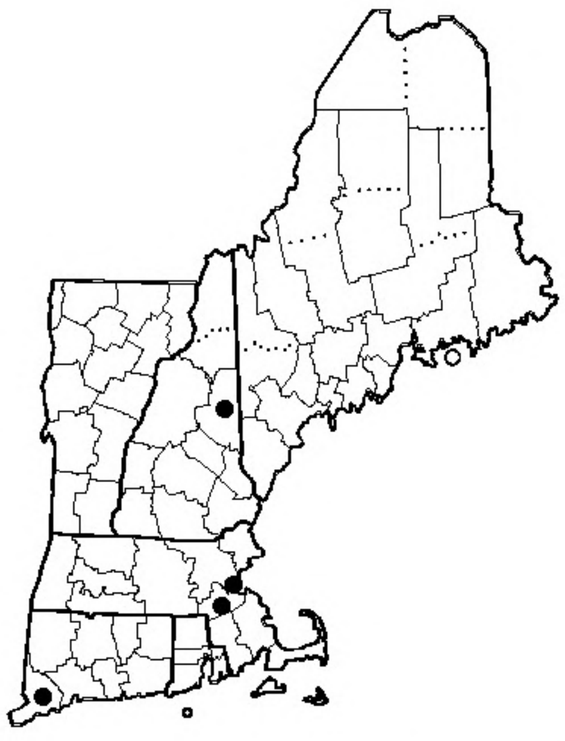


Symphyotrichum lanceolatum var. *lanceolatum*
X *S. pilosum* var. *pringlei*

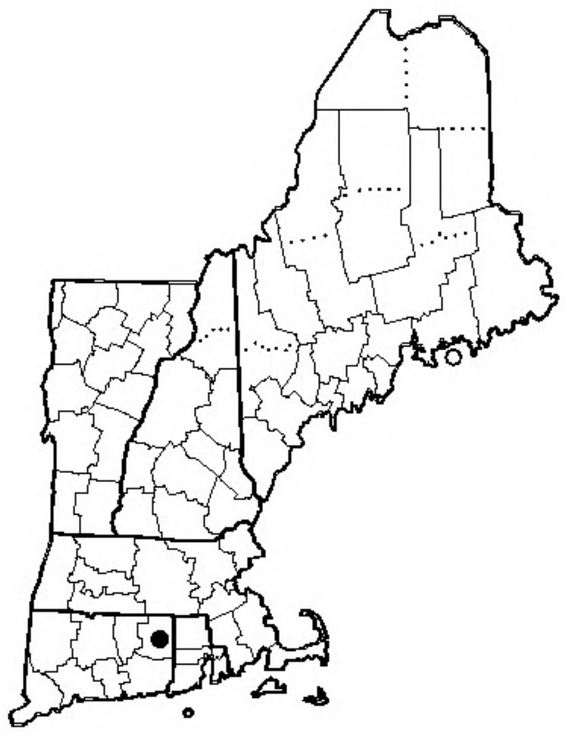
Figure 51. Distribution maps.



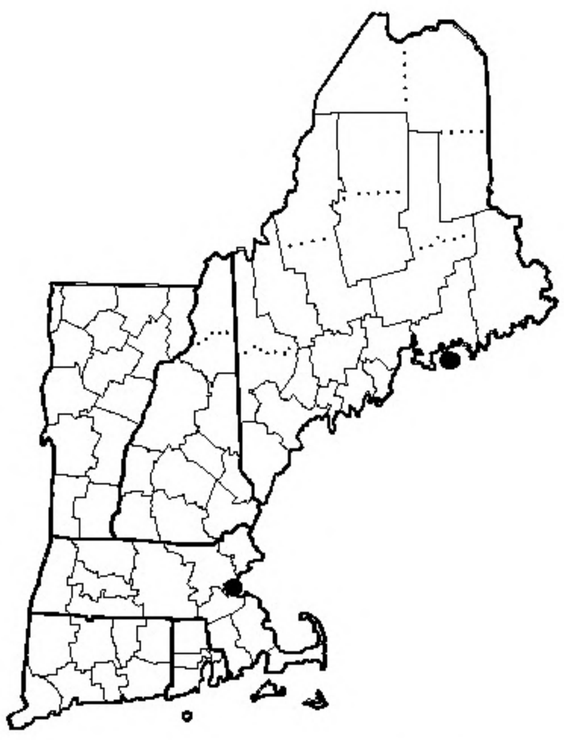
Symphyotrichum lanceolatum var. *lanceolatum* X *S. praealtum*



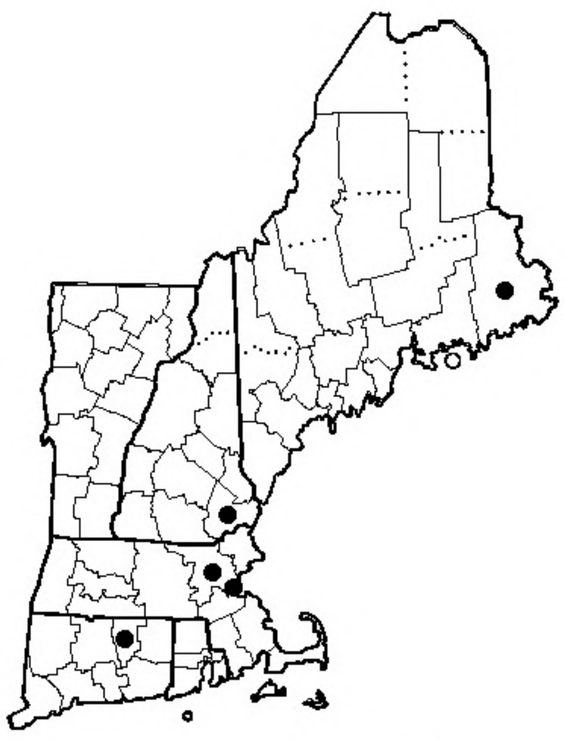
Symphyotrichum lanceolatum var. *lanceolatum* X *S. puniceum* var. *puniceum*



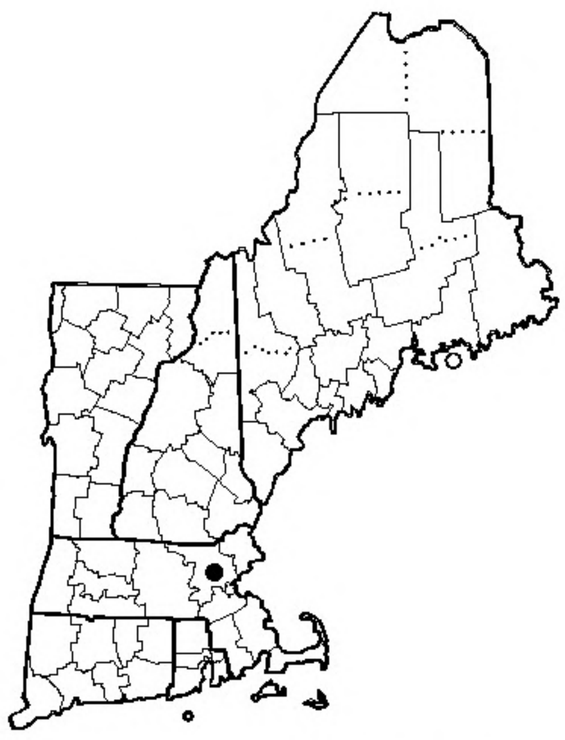
Symphyotrichum lanceolatum var. *lanceolatum* X *S. tradescantii*



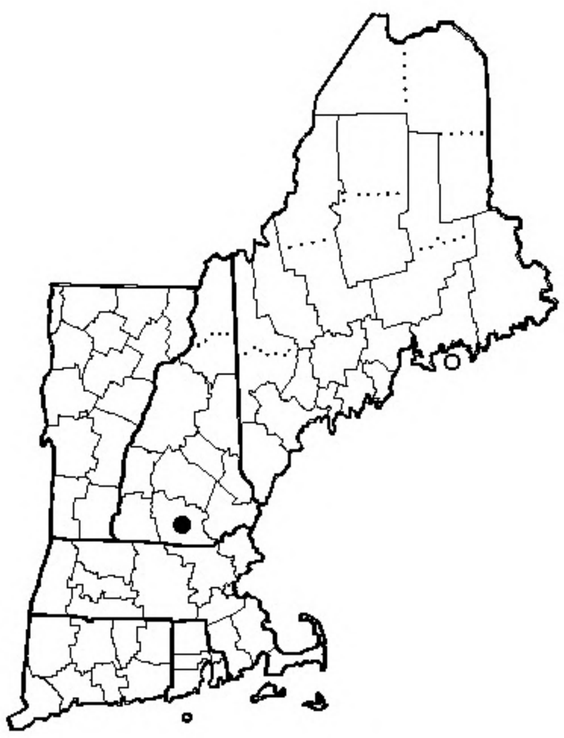
Symphyotrichum lateriflorum X *S. novi-belgii* var. *novi-belgii*



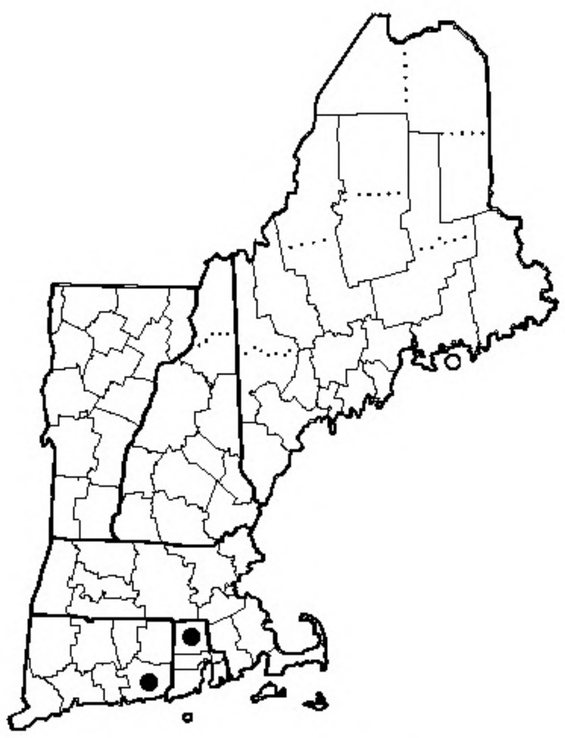
Symphyotrichum lateriflorum X *S. puniceum* var. *puniceum*



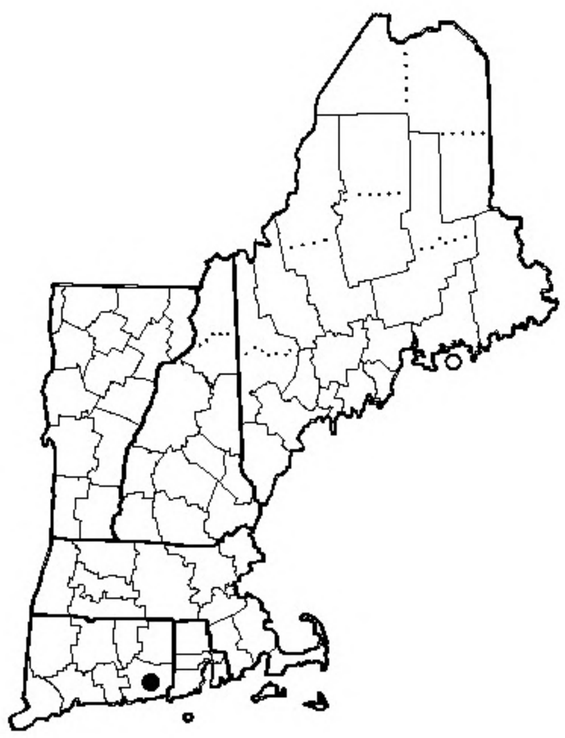
Symphyotrichum lateriflorum X *S. racemosum*



Symphyotrichum lateriflorum X *S. undulatum*

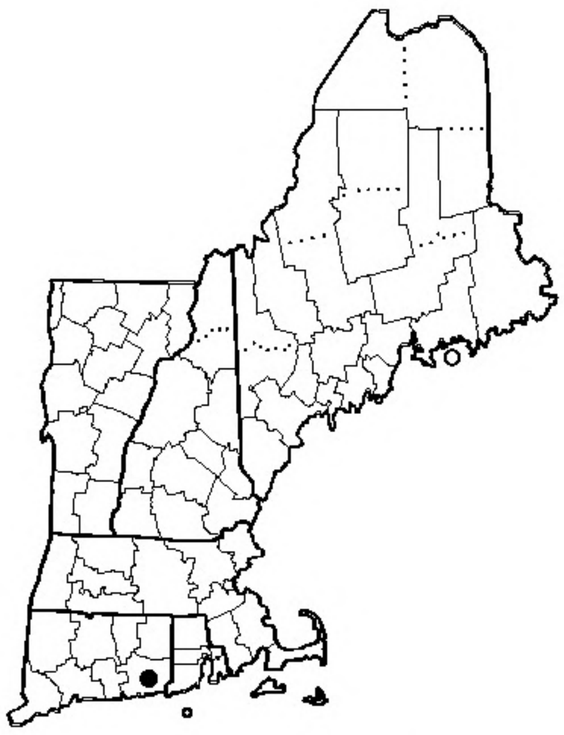


Symphyotrichum novi-belgii var. *novi-belgii* X *S. pilosum* var. *pilosum*

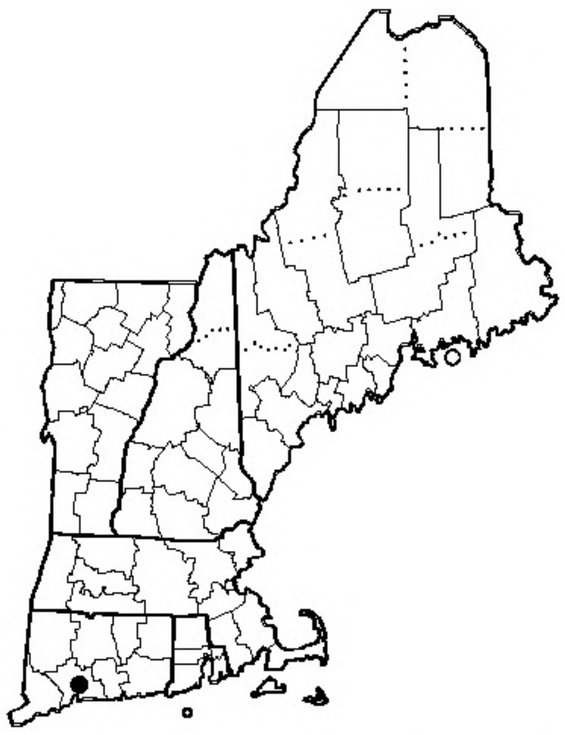


Symphyotrichum novi-belgii var. *novi-belgii* X *S. praealtum*

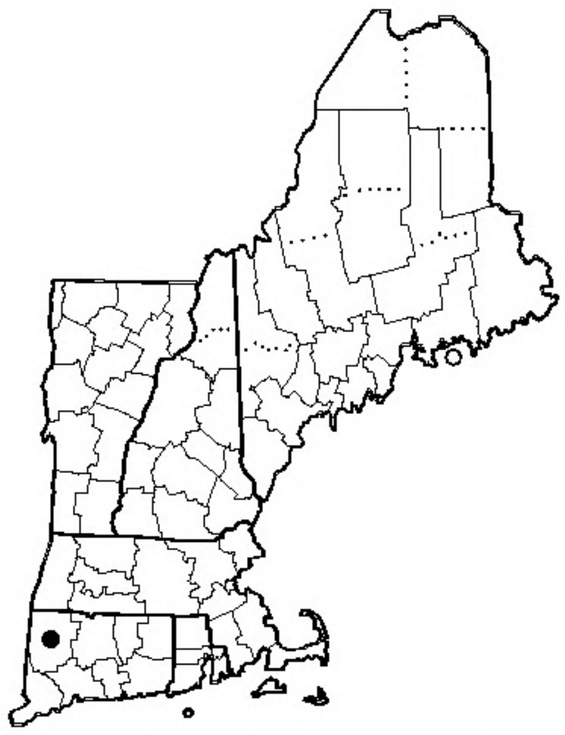
Figure 52. Distribution maps.



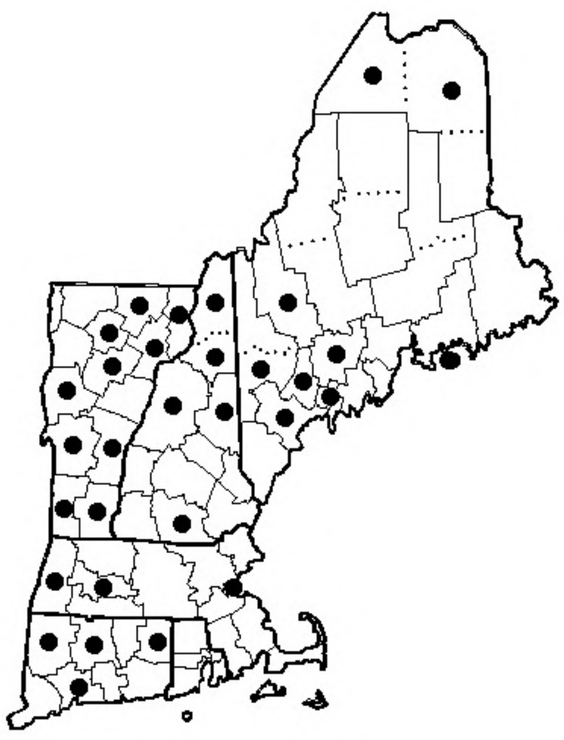
Symphyotrichum novi-belgii var. *novi-belgii* X *S. prenanthoides*



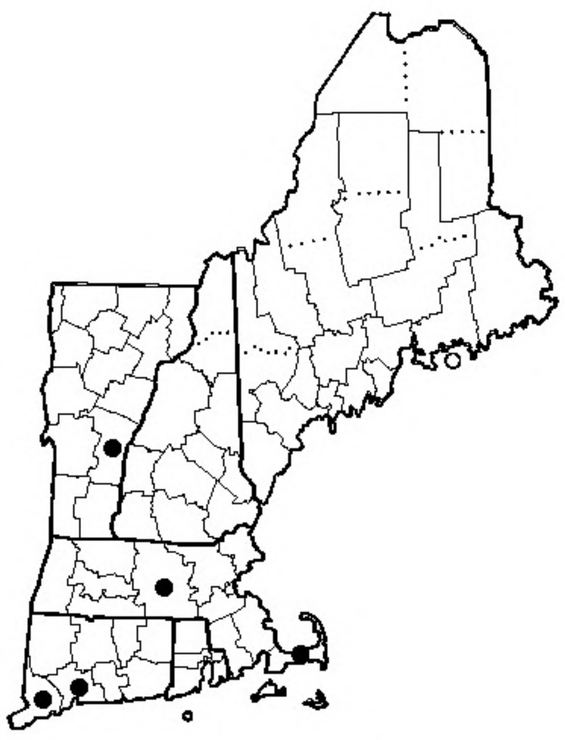
Symphyotrichum novi-belgii var. *novi-belgii* X *S. puniceum* var. *puniceum*



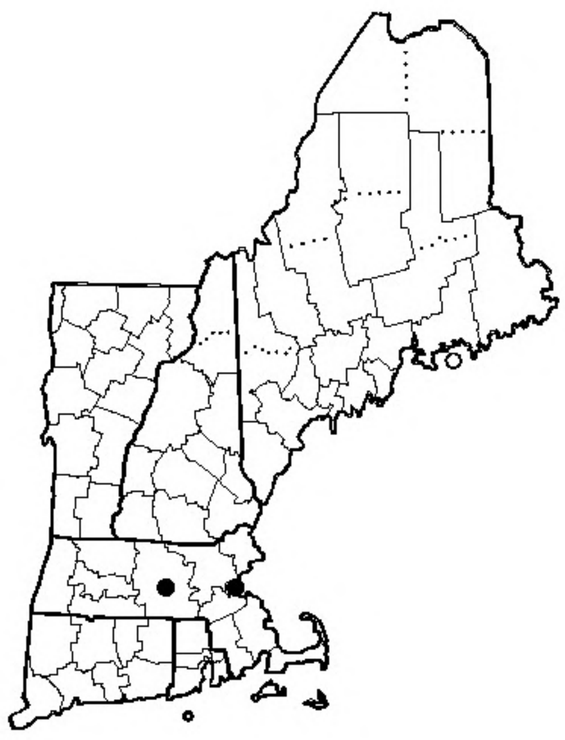
Symphyotrichum pilosum var. *pilosum* X *S. undulatum*



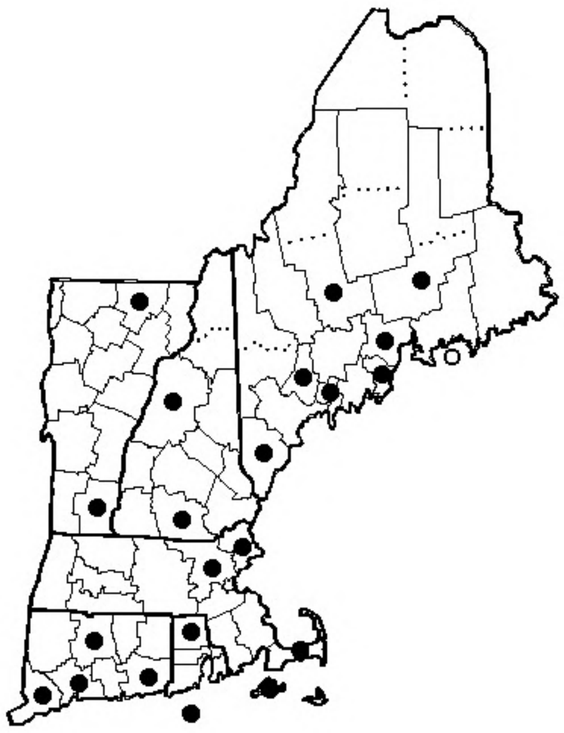
Symphyotrichum X *tardiflorum*



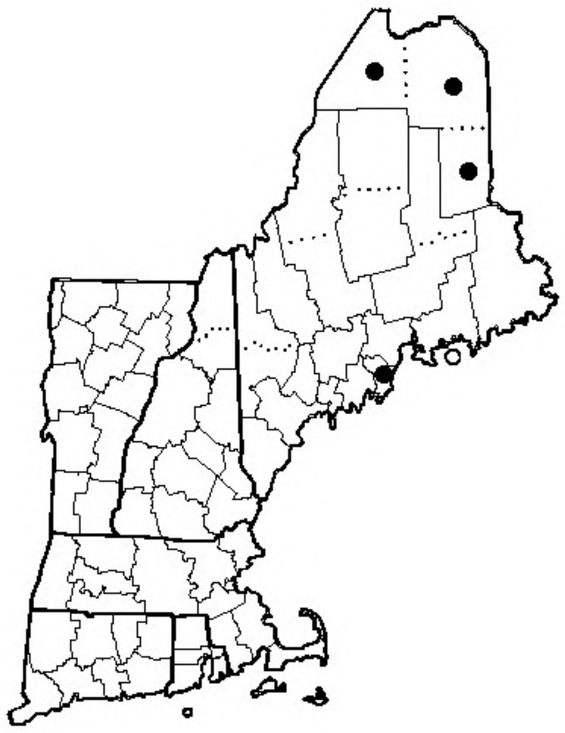
TAGETES ERECTA



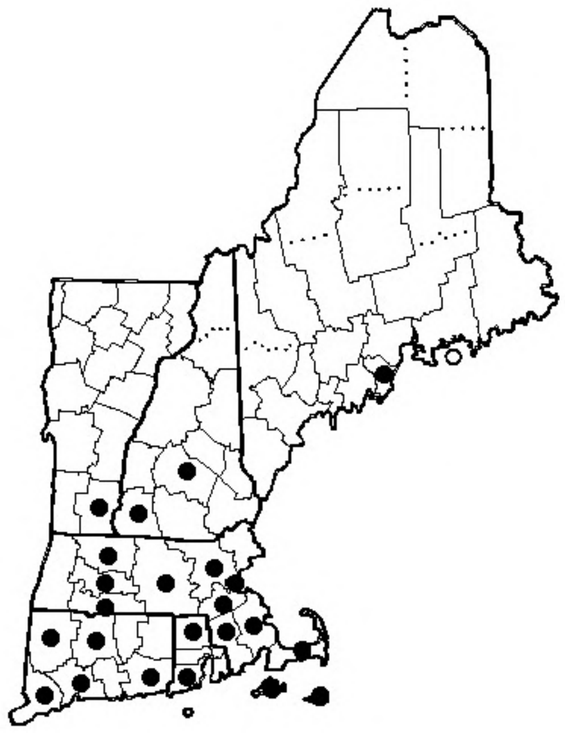
TAGETES MINUTA



TANACETUM BALSAMITA

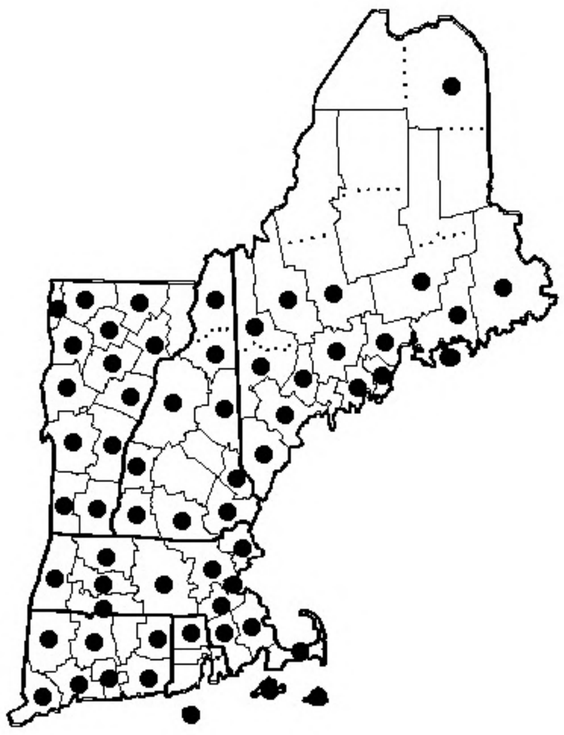


Tanacetum bipinnatum

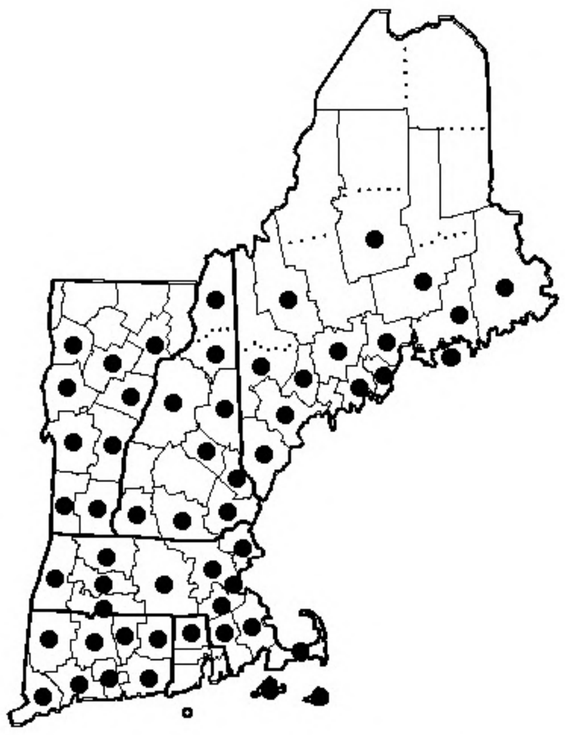


TANACETUM PARTHENIUM

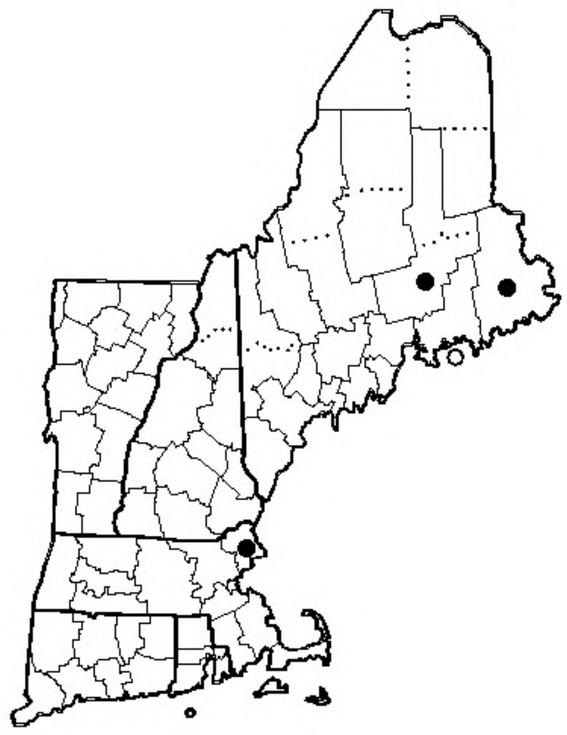
Figure 53. Distribution maps.



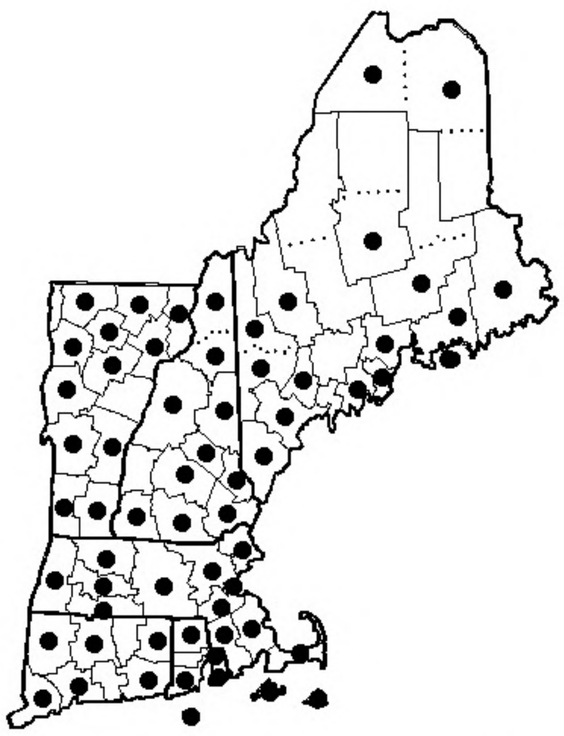
TANACETUM VULGARE



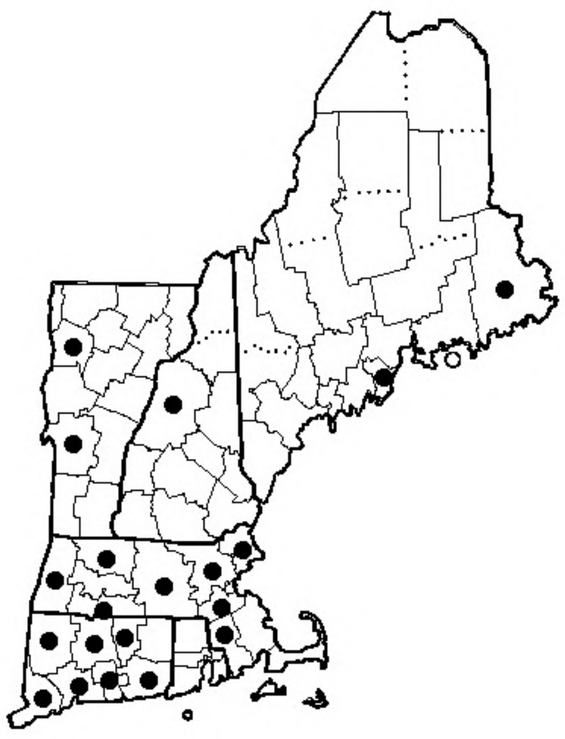
TARAXACUM ERYTHROSPERMUM



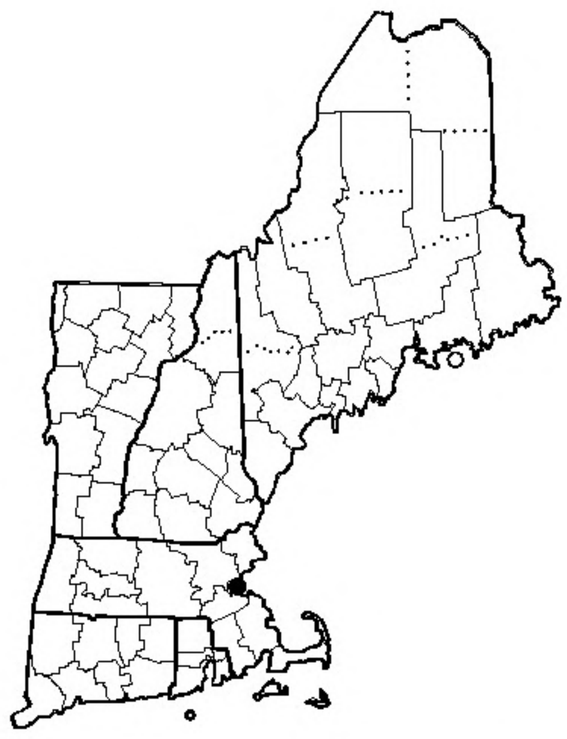
Taraxacum latlobum



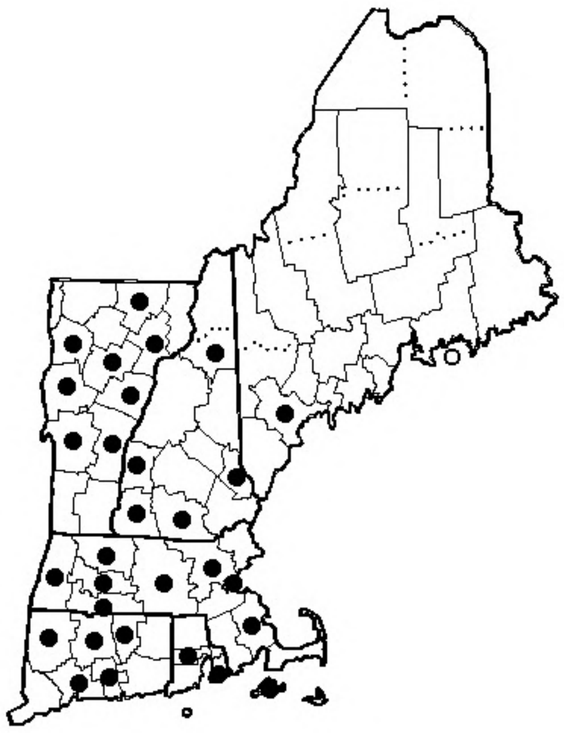
TARAXACUM OFFICINALE



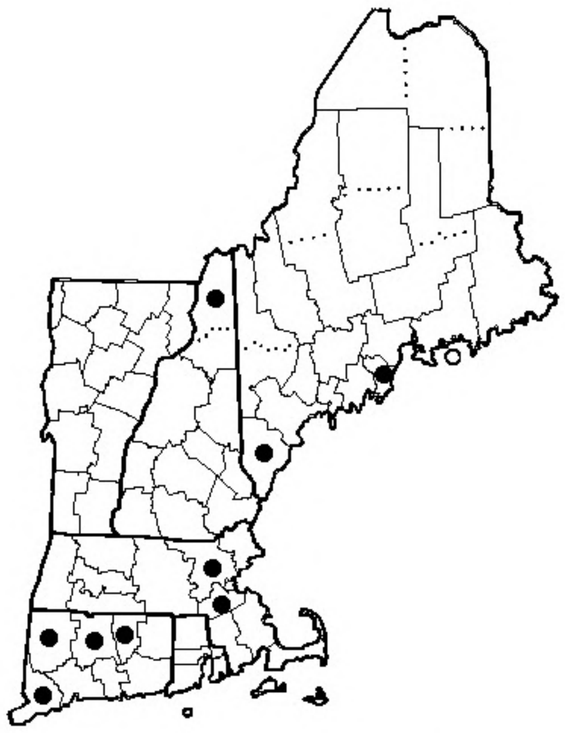
TARAXACUM PALUSTRE



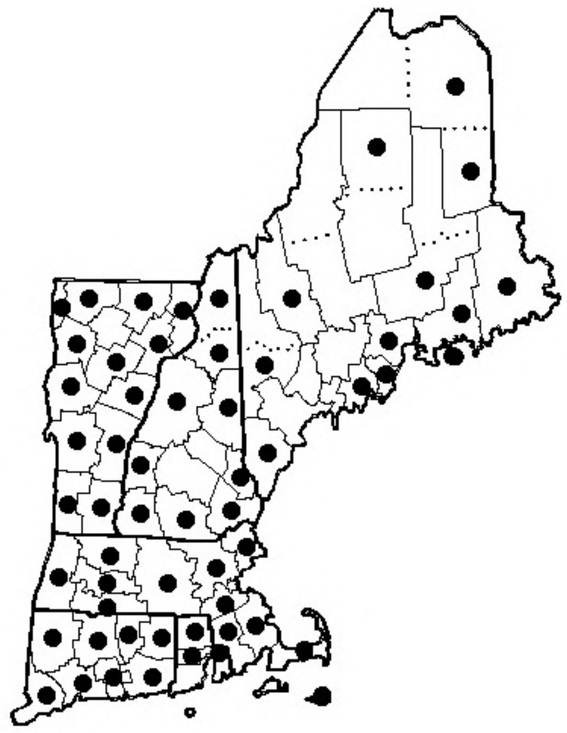
THYMOPHYLLA TENUILOBA
var. *TENUILOBA*



TRAGOPOGON DUBIUS

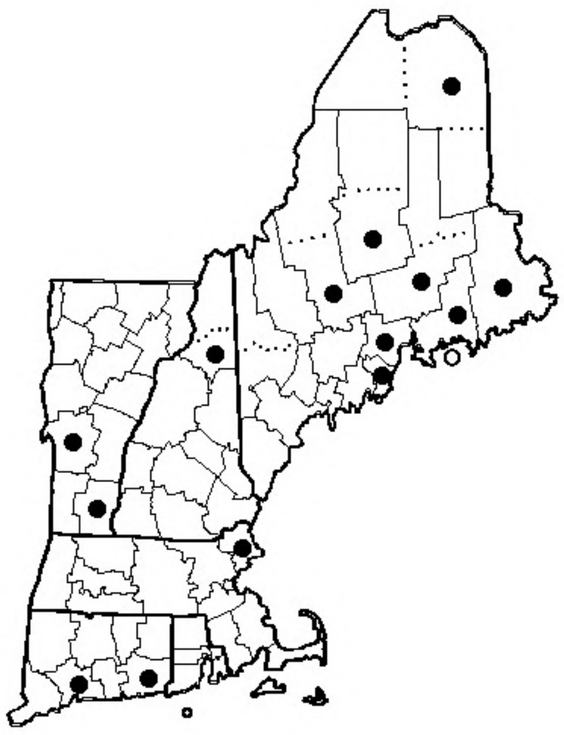


TRAGOPOGON PORRIFOLIUS

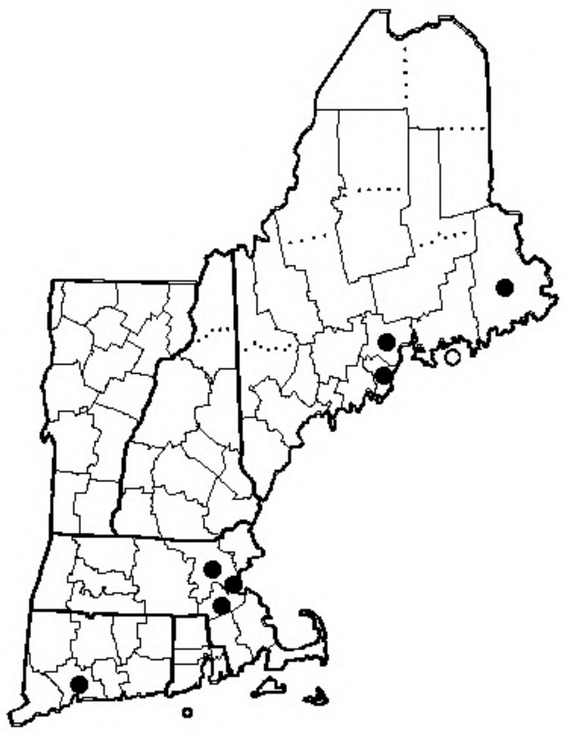


TRAGOPOGON PRATENSIS

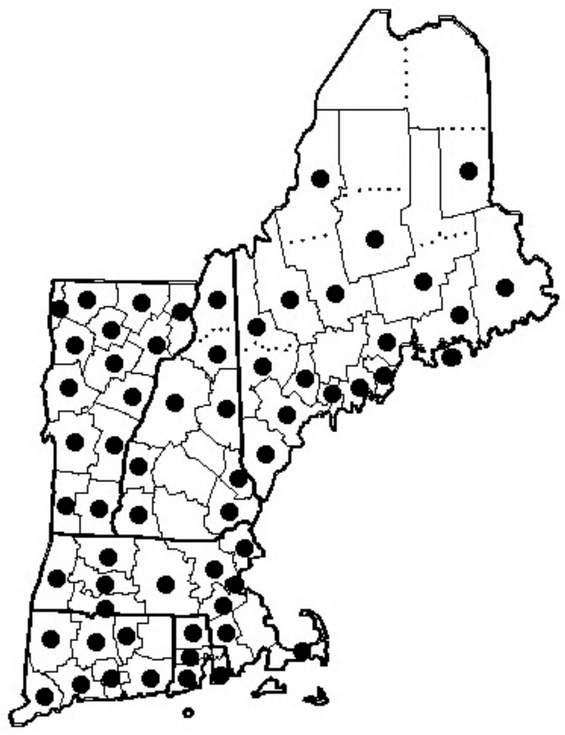
Figure 54. Distribution maps.



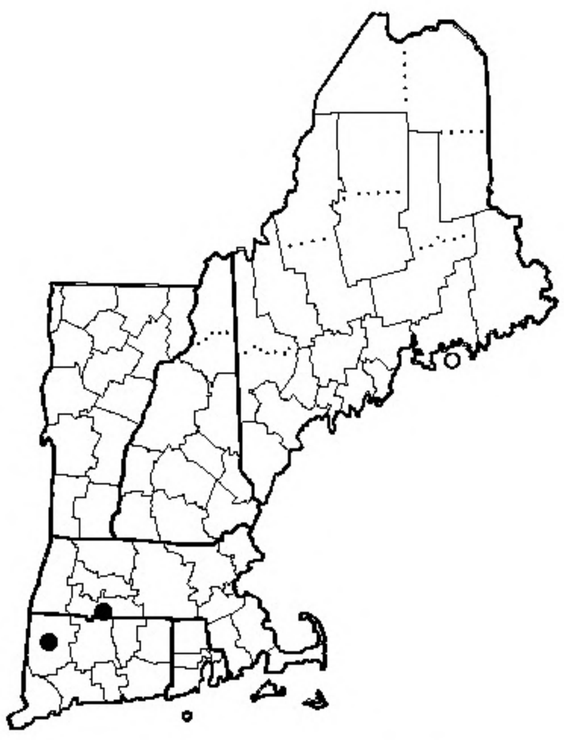
TRIPLEUROSPERMUM INODORUM



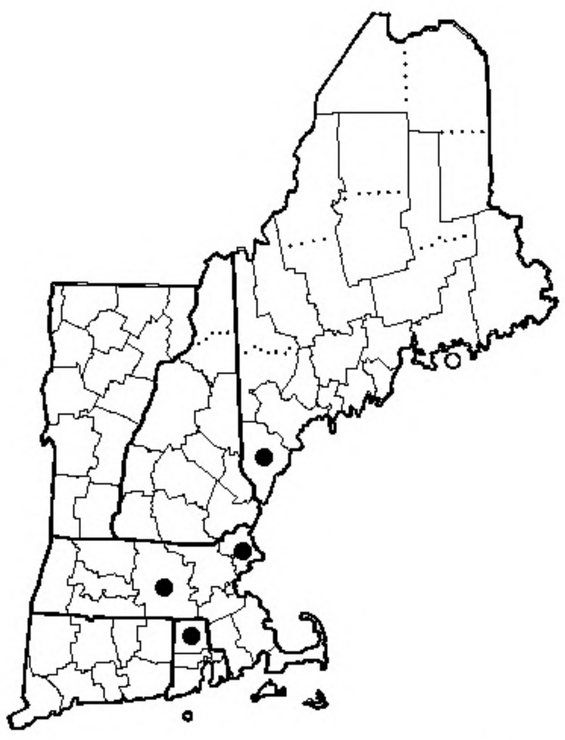
TRIPLEUROSPERMUM MARITIMUM subsp. *MARITIMUM*



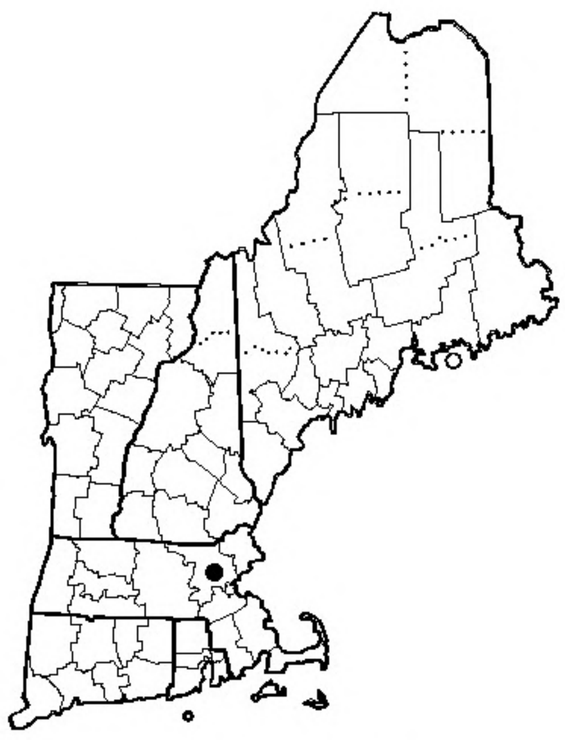
TUSSILAGO FARFARA



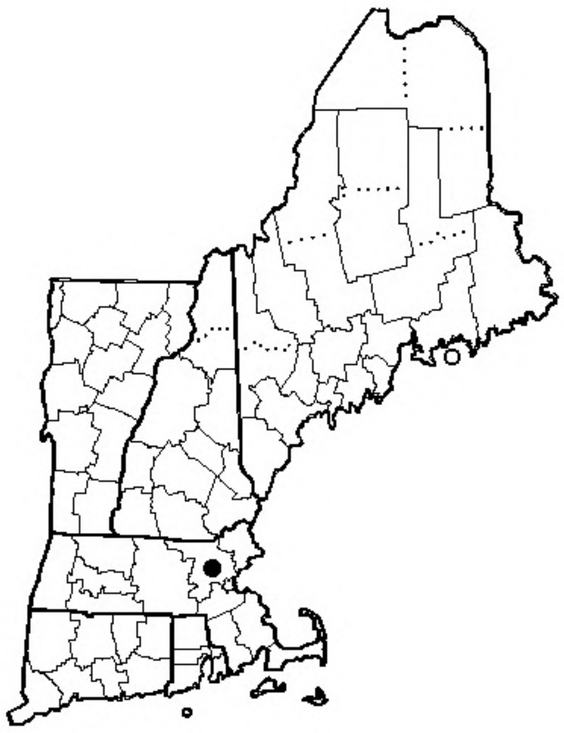
Verbesina alternifolia



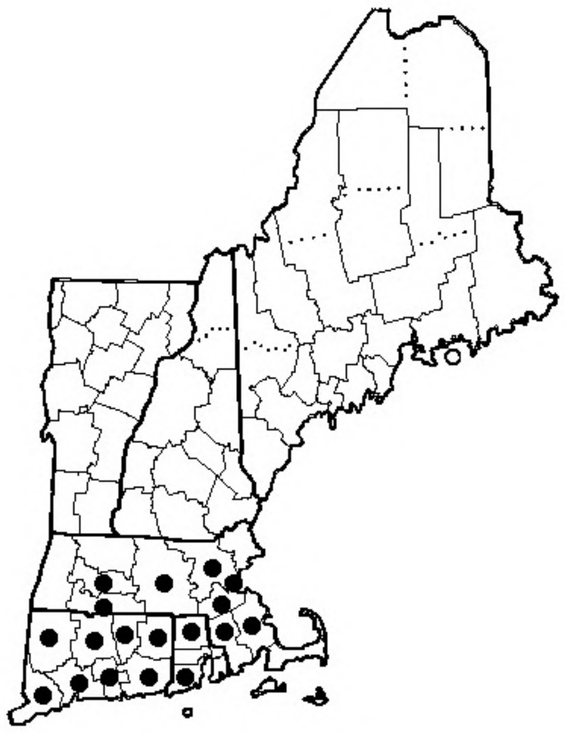
VERBESINA ENCELIOIDES



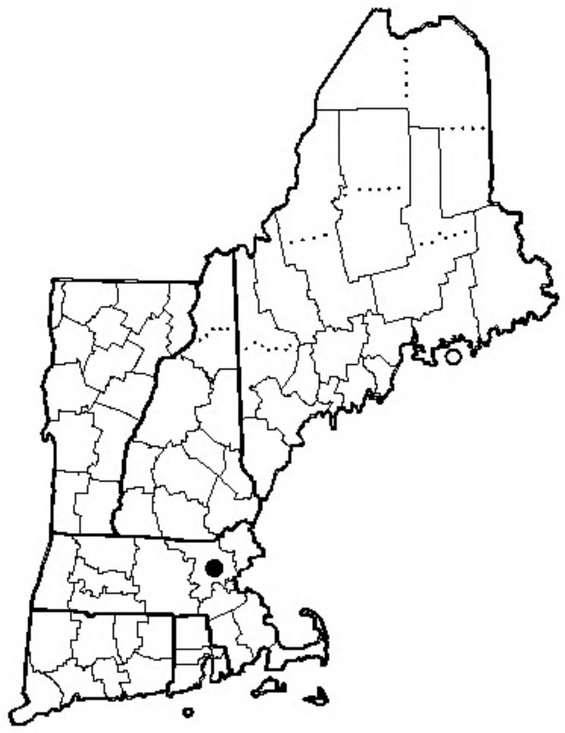
VERNONIA FASCICULATA



VERNONIA MISSURICA

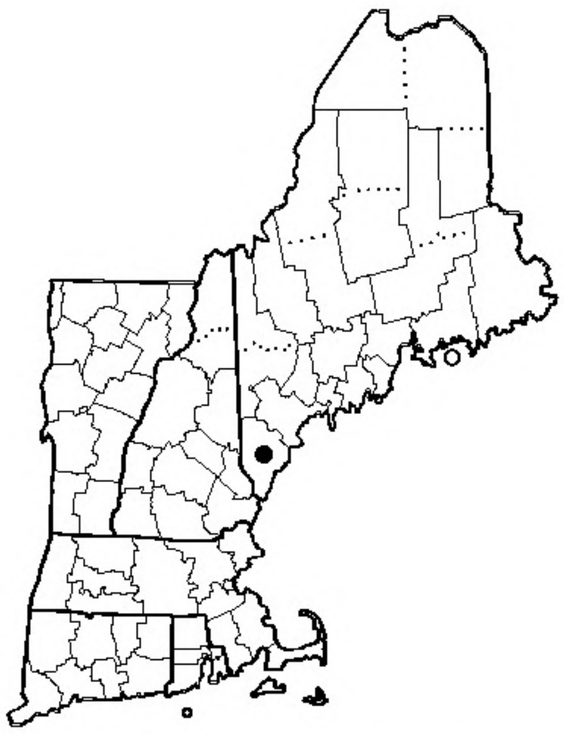


Vernonia noveboracensis

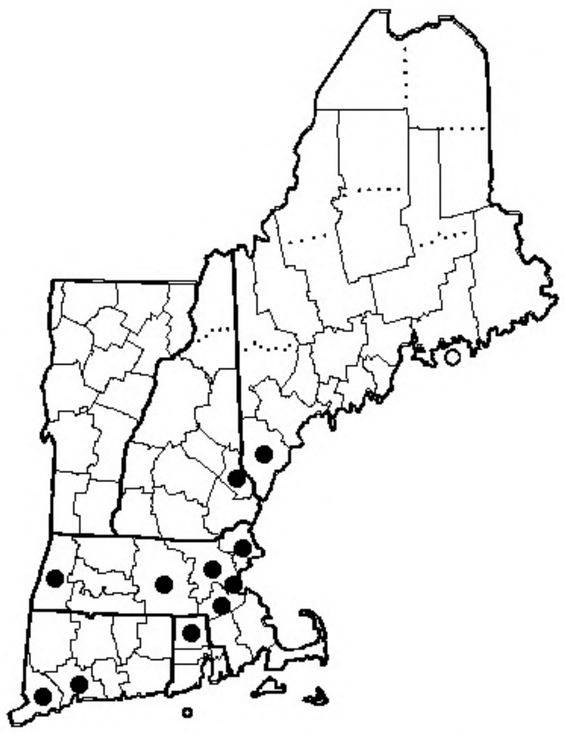


VERNONIA X PERALTA

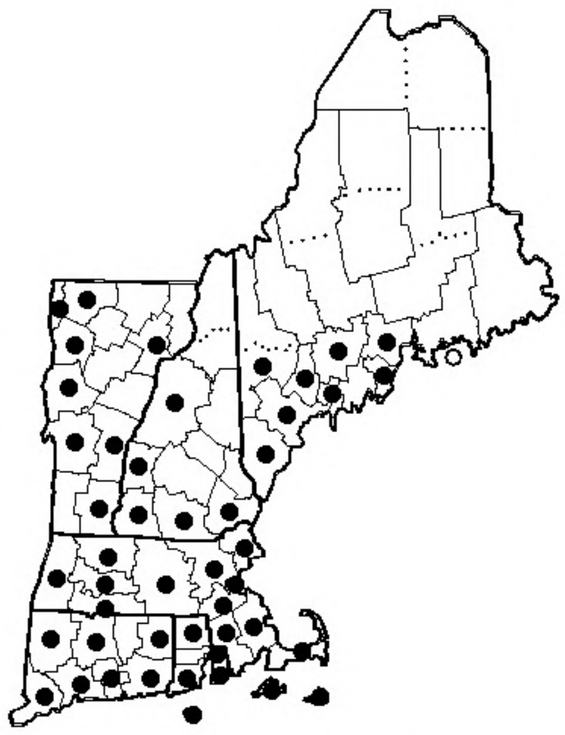
Figure 55. Distribution maps.



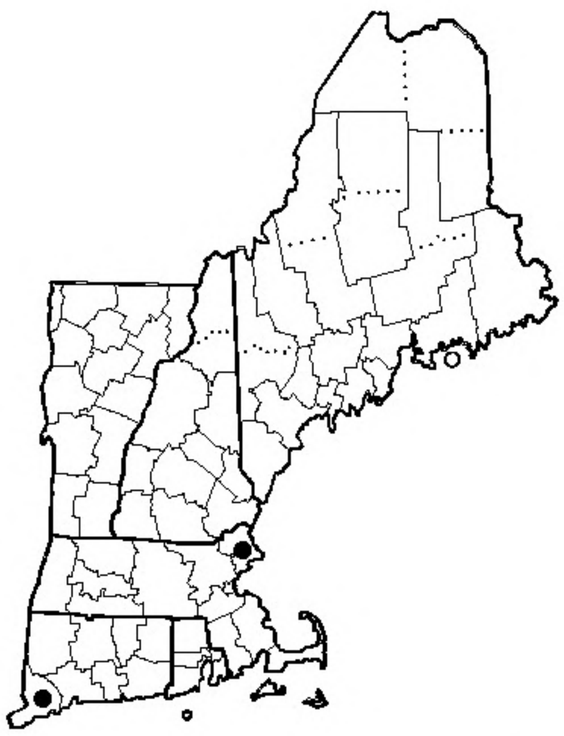
XANTHISMA GRACILE



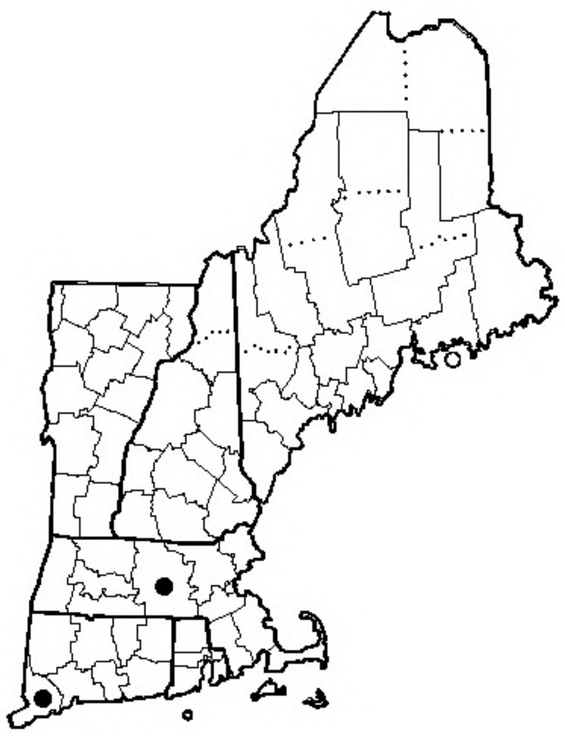
XANTHIUM SPINOSUM



Xanthium strumarium



XEROCHRYSUM BRACTEATUM



ZINNIA ELEGANS

Figure 56. Distribution maps.